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HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

MARCH, 1849.

Art. I.—THE BRITISH EMPIRE IN THE EAST.

WHETHER or not the remark is as true as common, "*that there is no romance like real life*," most assuredly, the history of the progress of affairs in British India presents an ample and striking illustration of the saying—"*truth is stranger than fiction.*" If any great speaker in the British Parliament had risen one hundred years ago or so, when some matter of the small "company of British merchants trading to the East Indies" was mentioned in its proceedings, (for it could scarcely have attained to the dignity of a debate,) and had declared that even the Nabobship of Bengal would yet be a British province, there cannot be the slightest doubt that he would have been listened to with the utmost incredulity. But what would have been the degree of ridicule of the wits of the honorable House of Commons, if he had proceeded to declare that Bengal would not form the boundary? that Great Britain would yet be the sovereign of an Indian territory more than five times the size of France, and more than ten times the size of the British Isles, governing more than one hundred and fifty millions of subjects, and influencing a hundred and fifty millions more? The next matter of surprise might be, that the British force in Hindostan would probably exceed that of the whole army of France in the time of her most splendid monarch, Louis XIV., a force of 300,000 men and 1,000 pieces of artillery in the field; completing the political and moral prophecy, by predicting that a little more than a couple of generations would witness its completion. It would have required the largest measure of personal respect, to make such a soothsayer listened to with patience. His views would have been called dreams, his calculations rejected as the conjectures of a disordered fancy, his anticipations ridiculed as the sport of a spirit willing to try the utmost extent to which public council could be deluded by the passion for conquest or the captivations of oratory.

The country in which this vast establishment has been founded, is among the most magnificent in the world. From north to south, from the snowy pinnacles of the great chain which rises between India and Tartary to the

low and fertile provinces of the south, from the bold and rocky heights of the Malabar coast to the level shores of Coromandel, the land exhibits every noble and productive variety of landscape—the deep and luxuriant valley, the mountain crowned with forest, a vast central table-land, possessing almost an European climate, and exhibiting the chief productions of Europe between the tropics; a multitude of rivers, sufficient, even, in that land of the sun, to fertilize the soil—a great peninsula, flanked on the east and west by two of the noblest streams in the world, the Indus and the Ganges; and with its sides, from Bombay to Cape Comorin, and from the Cape to Calcutta, washed by the ocean.

The character of its people, at once festive and mysterious, exhibiting the most artless simplicity with the most subtle craft, and combining the rudeness of peasant life with the most solemn and gorgeous superstition, corresponds to the powerful lights and shades of their climate. Its fields and forests possess the animals most remarkable for their strength, their sagacity their courage, and their use;—the elephant, the lion, the tiger, and the horse. Even its architecture shares the general spirit of a land where splendor is studied alike in the magnificent and the minute;—temples and monuments, built by emperors, and worthy of imperial wealth, topped with domes covered with enamel and gold, and sparkling in an eastern sun; while below, walls covered with elaborate sculpture, formed of every marble, and inlaid with every gem, exhibit a taste, which, however opposite to the classic severity of Europe, yet shows that the elements of beauty exist everywhere, that talent is confined to no one climate, and that the sense of beauty acts as vividly in the bosom of the untutored Indian as in the refined cultivation of Europe.

The conquest of a country of such vast extent, diversity, and power, by a small island at the distance of half the circumference of the globe, undoubtedly will excite feeling and inquiries surpassing those with which we are accustomed to regard the usual routine of worldly affairs. India, for a thousand years or more, had been the continual seat of governmental violence and popular suffering. Successions of local tyrants crushed by some one greater tyrant, or absorbed into his empire only to emerge, on its breaking up, like tigers from the fragments of their cage, and return with their dry jaws and thirst for blood, to a still more ferocious renewal of their oppression, covered the land with misery. Even this lot was not the most desperate. The country, from which the local tyrants drained its life, drop by drop, was periodically stricken to the dust by the sudden and irresistible blow of invasion—the Persian overrun it from the west, the Tarter rushed down with his cavalry from the north, and the whole strength and spirit of the land, helplessly buried under those barbarian multitudes, had scarcely revived, when a new influx of invasion buried it in the dust again. Even the occasional splendors of her dynasties cost her dearly; nothing could be more evanescent; and with the passing away of each throne came civil slaughter.

Even its position, in the centre of the most ferocious, war-loving, and savage nations of Asia—the Persian continually looking from his barren and mountainous provinces, upon the exuberance of the golden peninsula; the Scythian of the desert, driven alike by hunger and rapine to make incursions, from age to age, upon the timid and unprepared Hindoo, in the midst of his treasures and his harvests, seemed to have laid it under a perpetual sentence of exposure and devastation, a continual anathema of nature against its peace; a vineyard, whose grapes bloomed only to catch the eye of the spoiler;

with its fences broken down by the wild boar, the foot of the robber trampling on its beauty, and the snake and the tiger usurping the place of the lord of its vintage.

There is no exaggeration in this course of calamity, notwithstanding the casual pomp of isolated regions of the great peninsula in other days, or the beneficial changes introduced by some of those sovereigns, who, from time to time, start up in the most ruined countries. But what must be the unchanging character of Indian suffering, where the diadem was always lost or won by the sword, where the sovereign lived in the midst of domestic conspiracy, busied in its punishment or made restless and furious by its fears; and the people, under the heaviest and haughtiest despotism, relaxed or violent only according to the indolence or the passion of the ruler; where the throne was but a lion's den, and the slaughter and plunder of the population was wholly regulated by the degree of satiety or hunger of the royal brute enclosed. Yet it is in this country that the most powerful and comprehensive effort of restoration ever known in Asiatic annals has been made, and that too by the interposition of Great Britain.

If this restoration had originated and been consummated by some neighboring power, suddenly civilized, and dispensing its civilization—if some Cyrus the younger had arisen in Persia, cultivating the arts and morals of the west, and shedding them like the seeds of a rich harvest into the desolate soil beyond the Indus; we might have attributed the result to the natural course of things. But if the map of the world had been spread out, and one had been requested to lay his finger upon the probable protector, the sovereign, and ultimately the regenerator of India, Great Britain would have been the last country to whom would have been assigned this mighty undertaking. Who would rationally have looked to a company of merchants for almost unlimited conquest? to an Island, then not containing six millions of people, and at the distance of ten thousand miles, for the acquisition, the defence, and the administration of an empire of a hundred and fifty millions of men?

Is it that there is a moral law, like the physical, requiring that the balance shall be moved at the extremities? that the restoration of the decayed forces of nations shall proceed, like the electric streams which rush from the poles and expand in brilliancy and power over the equator, that there is a constant providential provision for renewing the spirit of mankind, operating at distances of time and space, upon which no one can calculate until it presents itself to the senses—a mighty gulf-stream of influences and impressions, powers of renewal, and means of human improvement, constantly making its silent but irresistible path across the great and disturbed ocean of human affairs? Whether this principle be the true solution, or whether some still more hidden and benevolent instrumentality exists in the councils of Providence, India and Great Britain undoubtedly present the most prominent instance of a united purpose and a combined action for the attainment of the most exalted results in the history of modern affairs.

India, as delineated by the ancients, comprised the whole tract of country from Persia in the west to China in the east, and was bounded on the north by Tartary, and on the south by the Eastern Archipelago. Hindostan proper, however, lies within the Himalaya mountains, the Indus, the Burrampoota, and the Deecan, although the countries of the last mentioned boundary are usually included by Europeans. The Himalaya chain of mountains is understood to commence to the northward of the city of Cabool, where it

stretches, under the Affghan name of *Kindoo Koosh*, to the confines of Cashmere, a distance of four hundred and forty miles. Here it gives passage to the Indus, on the farther side of which, assuming its own more appropriate appellation, (meaning the abode of snow,) it pursues a south-easterly direction, separating India from Thibet, till it is lost to observation in the unexplored country beyond Bhootan. It is supposed, however, to traverse afterwards the most southern provinces of China, gradually sinking in elevation until it reaches the Chinese sea. This stupendous range is reckoned the loftiest in the world, affording, for at least one thousand miles, a series of elevations twenty-one thousand feet above the level of the sea, with various summits rising beyond that height about six thousand more.

The more elevated portion of the mountains, so far as they have been surveyed, are composed of primitive rocks, but more especially of gneiss, with only occasional veins of granite intermixed, and beds of micacious slate. The other constituents are hornblende slate, chlorite slate, and chrystalline limestone, supporting clay slate and flinty slate; with sandstone towards the base, forming the southern steps of the chain. No trace has yet been discovered of volcanic action; and these sublime mountains may be supposed to retain the identical shape which they received when the crust of the globe was first formed. Neither are their elevated summits subject to the changes of the seasons which elsewhere modify the face of nature, but their peaks of primitive rocks are covered with everlasting snow. In the names given to different parts of the range—Himadri, Himarat, Himachil, and Himalichil—*snow* is always the distinctive appellation. Himalaya, (the great collective name,) it need hardly be added, is one of the gods of the country, the father of the holy Gunga, and the step-father of Siva the Destroyer.

Running for a certain distance, nearly parallel with this range, there is another of inferior elevation, composed of the same materials, but with sandstone as the principal surface rock, which forms the southern barrier of the valley of the Ganges and the Jumna. There are besides, three mountain ranges disposed in a very remarkable manner along the sides, and across the base of India. The western, or Malabar range, commences at Kandeish, and stretches along the coast a distance averaging about forty miles, till it terminates near Cape Comorin, overlooking the Indian Ocean.

During this course, the primitive rocks are frequently seen above the surface, sometimes in peaks of granite six thousand feet (and one, it is said, seventeen hundred feet more) above the level of the sea; but the distinguishing geological feature is the superincumbent trap in the northern part of the range, and the iron-clay or laterite in the south. The first of these basaltic formations confers upon the landscape a character of wild and romantic beauty, the hills sometimes rising in vast terraces, and sometimes in tabular masses, with deep gulfs between, the whole covered with forests of teak, and the other majestic trees of India.

The primitive rocks of the continent appear again in the Island of Ceylon; the elements, however, which compose them, being frequently in such proportions as to confuse the geologist. Quartz, hornblende, and dolomite are found, but not in mountain masses, with the recent formations of limestone and sandstone, the latter forming a belt around the whole island, between low and high water mark—the mountains here in continuous chains, like those of the main land, and rise, in some cases, to the elevation of 5,000 feet, with one or two peaks 1,000 feet higher.

Returning to the continent, the eastern or Coromandel range commences

at the valley of Coimbatoor, where it may be said to issue from the western or Malabar range; and it extends northward to about the same latitude, where the latter begins. Its general elevation is lower, and for this reason the rivers, which have their sources in the lofty table land between the two ranges, (which are commonly, though improperly, termed *ghauts*,*) descend, with few exceptions, through its valleys and gorges into the Bay of Bengal. The loftiest portions yet surveyed, do not greatly exceed 3,000 feet. The sides and base of the mountains are composed of granite, gneiss, and mica-slate, interspersed occasionally with clay slate, hornblende slate, flinty slate, chlorite and tale-slate, and primitive orchrystalline limestone.

The Vindhya range stretches across the country in such a manner as to form the base of an irregular triangle, the two other sides of which are the Coromandel and Malabar chains. The Vindhya mountains, however, have comparatively little geological connection with the peninsula, farther than the Krishna river, and should rather be considered as a portion of the general scheme of Central India. The grand and peculiar feature of the whole of this surface is the superincumbent trap, which is said to cover an area of 200,000 square miles. The other rocks are granitic, with sandstone; but the whole of India is peculiarly barren of more recent formations than the latter. The coal strata are numerous throughout the whole country. A matter worthy of mention, however, and hardly susceptible of explanation is, that the rarity of organic remains, both in the stratified rocks and diluvial soil, is the most striking phenomena in Indian geology.

Connected with the western limits of the Vindhya range, by a curved line of hills, are the Aravulli mountains, which stretch almost to Delhi, and serve as a barrier between Central India and the western desert. These mountains rarely exceed 2,000 feet above the level of the sea, although Mount Aboo, in the neighborhood, is supposed to rise to the height of 5,000 feet. Their composition is granite, including sienite.

The Indian Desert, a geological feature of a different kind, but not less remarkable than the others, extends laterally from the Aravulli range to the valley of Sinde. On the north it meets the valley of the Sutledje, and on the south is lost in the Runn, or great salt marsh of Cutch. From Hyderabad, as far north as Oock, in looking eastward from the river, the visible horizon is a bulwark of sand, frequently 200 feet high, guarding the valley of the Indus like the wall of a fortress. This is the commencement of the Desert, which is well characterized by its native name, *Maroosthali*, or the region of Death. It consists, with the exception of a few oases, of hills of loose and heavy sand, which sometimes change their position and shapes at the caprice of the wind, and which, but for the intervention of the Aravulli mountains, would long ago have submerged the whole of Central India. The Runn is an immense morass of salt and mud, the area of which is estimated at 8,000 square miles. The salt deposits are chiefly formed by the river Looni, rising in the Aravulli; and in some places the incrustations are so thick as to have the appearance of snow. This line of desert, whether of land or salt, stretching northward to the Sutledje, is the grand defence of India on the west. It is skirted by the valley of the Indus, beyond which the sandy desert is continued. The country of the Punjaub, therefore, forming the north-west corner, between the desert and the Himalaya, affords the only point of access in this direction for an army.

* A pass through a mountain; applied also to a range of hills, the ford of a river, and also a landing place upon a river side—particularly where duties are collected.

It is obvious that a region so securely enclosed within natural barriers, must have remained, for a considerable period, unknown to the rest of the world. Before the veil was withdrawn, India had arrived at maturity; and the wandering Europeans found, in the country of the Eastern barbarians, a civilization as refined as their own, though so strange and peculiar as to perplex as well as to astonish them. As for the country now called Hindostan, it appears to have been divided among various petty princes; although one powerful kingdom, known to the Macedonians as the territory of the Prasij, extended for some distance on both sides of the Ganges.

Another striking feature of India is her rivers. The Indus, forming the north-western boundary of Hindostan, is conjectured to have its source upon the northern declivity of the Callas branch of the Himalaya mountains, and flows, 900 miles in length, into the Arabian Sea. It takes a general W. N. W. course past Ladak, and receives the larger river Shyook, N. W. of Ladak, whence the united streams run through the country of little Thibet, and after cutting a passage through the great Himalaya range, are joined, about one hundred and twenty miles south of the mountains, by the Abooseen, and lower down at Attock, where it is two hundred yards wide, and both deep and rapid, by the river of Cabul. The river is crossed here by a bridge of boats, constructed like that used by Alexander, and described by Arrian. The bridge is only allowed to remain between November and April, when the river is low; and the construction of it is completed in the course of six days. South of Attock, the Indus enters a plain, but soon afterwards winds among a group of mountains as far as Hanabah, whence it pursues a southerly course to the sea. The breadth of the river at Kaharee-Ghat is about 1,000 yards, with a channel 100 yards across, and twelve feet deep. The banks in this vicinity are very low, and in summer are so much overflowed, that the stream expands in many places to a breadth of fifteen miles. In latitude 28° 55′ the Indus receives the Punjab rivers, and rolls past Mitlum with a width of 2,000 yards, and a depth near the left bank of four fathoms. Here the main stream takes a S. W. course to Bukkur, with a direct channel, but frequently divided by sandbanks. At this point, the country on both sides is of the richest nature, but particularly on the easterly bank, where it is flooded by innumerable channels, cut for the purpose of throwing the water in a south-easterly direction into the interior. About seventeen miles south of Bukkur, the Indus sends off a branch to the west, called the Larkhaun river, which, after making a circuit, and expanding at one point into a large lake, twelve miles broad, rejoins the main stream fifty miles below the point of separation. The insulated territory, called Chandokee, is one of the most fertile in the Sinde dominions. About one hundred and sixty miles below Bukkur, is Sehurun; and between these points the river flows in a zig-zag course nearly S. W., the intervening country being richly watered, and divided by its ramifications into numerous islets, containing the finest pasture. The distance between Sehurun and Hyderabad is one hundred and five miles; the banks seldom exceed eight feet in height, and the neighboring grounds are usually covered with tamarisks. The main river opposite Hyderabad is 830 yards wide, and five fathoms deep; but the channel becomes narrower and deeper as it approaches Tatta, sixty-five miles below the capital. Shifting sandbanks also occur in many parts between these latter points, to such an extent as to perplex the navigator. The country north of Tatta, which might be rendered one of the richest and most productive in the world, is left in a state of sterility, presenting to the eye only dense thickets of tama-

risk, saline shrubs, and other underwood. About five miles south of Tatta commences the Delta of the Indus. The river here divides itself into two branches, that to the right being called the Buggaur, whilst that to the left is known as the Sata. The latter is by far the larger of the two, and a little below the point of division has a breadth of 1,000 yards. It divides and subdivides itself into many channels, and precipitates its water into the sea by seven mouths, within the space of thirty-five miles; yet such is the violence of the stream, that it throws up sandbanks or bars; and only one mouth of this many-mouthed arm is ever entered by vessels of fifty tons burthen. The Buggaur, on the other hand, flows in one stream as far as Darajee, within six miles of the sea, at which point it bifurcates, forming two arms, which fall into the ocean twenty-five miles apart. A sandbank, however, which crosses its upper part, close to the apex of the delta, renders it unfit for navigation. The land enclosed by the Buggaur and Sata extends, at the junction of these rivers with the sea, to about seventy miles, and so much, correctly speaking, is the existing delta; but the river covers with its waters a much wider space, and has two other mouths, still further east, namely, the Seer and Khoree, from which, however, the waters have been diverted by the rulers of Sinde into canals, for the purposes of irrigation. If, therefore, these forsaken branches be included, the base of the delta, measured in a straight line from the westerly to the easterly embouchure, extends one hundred and ten miles in a S. S. E. direction. The inconstancy of the stream through the delta makes the navigation both difficult and dangerous. Vessels drawing eight feet of water find themselves aground at the very entrance of the Seeta mouth. The employment of ships is out of the question, and the navigation of the *doondees*, or small native boats, is so tedious, that no communication of any importance could be kept up between Hyderabad and the sea, except by steamers, the use of which, in a country like Sinde, would be attended with extreme difficulty. The tides rise in the mouths of the Indus about nine feet at full moon, and both flow and ebb with great violence, particularly near the sea, where they flood and abandon the banks with equal and incredible velocity. They are not perceptible more than seventy-five miles from the sea, or about twenty-five miles below Tatta. The quantity of water discharged by the Indus is stated to be 80,000 cubic feet per second, nearly as much as is discharged by the Mississippi, and about as much as is discharged by the Ganges, the other great river of Hindostan, in the dry season. This discharge, provided the calculation be accurate, must be attributed chiefly to the greater length of its course in high and snowy regions, to its numerous and large tributaries, and to the barren and arid nature of the soil through which it passes; whilst the Ganges, on the other hand, expends its waters in irrigation, and blesses the inhabitants of its banks with rich and exuberant crops. The Indus has numerous affluents, none of which, however, deserve any particular mention, except the Sutledje, which is the most easterly of all, takes its rise near Garoo, on the great plain north of the Himalaya mountains, enters the chain at Shipkee, where it is 10,484 feet above the level of the sea, runs in a narrow mountain valley for upwards of one hundred miles, and enters the southerly plain at Ropur, whence its course is south-westward to its junction with the Indus. The other rivers of the Punjab, besides the Beas, which is an affluent of the Sutledje, are, proceeding westward, the Ravee, the Chenab, and the Jylum. The last three, all of which rise on the southern side of the great mountain range of northern India, join their waters with those of the

Sutledje, in the twenty-ninth degree of north latitude, and the seventy-first degree of east longitude. The rivers of the Punjab are generally navigable up to the place where they issue from the mountains.

The Ganges, the other and principal river of India, forming its north-eastern boundary, watering its most fertile regions, takes its rise near the central chain of the Himalaya mountains, and flowing 1,500 miles in its course, empties into the Bay of Bengal. It consists of two principal heads, the Bhagirathi and Alcananda. The former, though neither the largest or longest, is considered by the Hindoos as the true Ganges. It issues about twelve miles above Gangoutri, from under a low arch called the "Cow's mouth," at the base of a mass of frozen snow, about 13,800 feet above the level of the sea; with a mean breadth of twenty-seven feet, and a medium depth of twelve inches. It forms a junction with the Alcananda at Deoprang. The resulting stream, with a width of about eighty yards, assumes the name of the Ganges; and at Hurdwar enters the great plain of Hindostan, at an elevation of only 1,024 feet above the level of the sea. It flows thence, with a smooth navigable stream, to the ocean, a distance of 1,350 miles, diffusing abundance on all sides by its waters, its products, and the facilities it affords for internal communication. Its chief tributaries are the Jumna, Ramgunga, Goompty, Goygra, Sone, Gunduck, Cosi, Mahanunda, &c. They vary in length from 300 to 600 miles; and except the Sone, flow towards the Ganges from the north. About two hundred miles from the sea, the delta of the Ganges begins to be formed. Of its two principal arms, which form the outermost of the whole series, the eastern is the larger, and preserves the original direction of the main stream, together with its name; but the western arm, or Cossim-bazar branch, called afterwards the Hoogly, is considered by the natives the true Bhagirathi, and is invested by them with the greatest portion of sanctity. The entire delta between the two principal arms is a vast alluvial flat, nearly two hundred miles in breadth, intersected by numerous rivers, interlacing each other in all directions, and which enter the sea by nearly twenty different mouths. The region round the mouths of the Ganges, termed the Sunderbund, is a pestiferous tract, covered with jungle, and swarming with tigers and other beasts of prey. At the distance of 500 miles from the sea the Ganges is thirty feet deep, and it continues of that depth, at the least, until it approaches very near its mouth. The rate of descent from Hurdwar to the sea averages about nine inches per mile, but nearly two-thirds of the entire fall takes place before reaching Cawnpore. The mean rate of the current in the dry season is less than three miles per hour, but in the wet season it is often from five to six miles, and in particular situations, from seven to eight miles. Its banks are commonly precipitous on the side upon which the current impinges, and shelving on the other side. The force of the stream, when the river is at its height, sometimes breaks down the banks, which are composed of a loose and yielding soil, with such rapidity, that an acre of land has been seen to disappear in less than half an hour! From the large quantity of mud brought down by the river in the wet season, and other causes, its mouths are obstructed with bars and shoals. The Hoogly is less so than the eastern arm, but no ship drawing more than fifteen feet of water, can navigate the latter with safety; and the East India Company's ships, which were usually from 1,000 to 1,200 tons burthen, and drew above twenty-two feet of water, loaded and unloaded at Sangor Island.

The annual inundation of the Ganges is owing chiefly to the tropical rains. This, as well as other rivers in Bengal, begin to rise in consequence of the

rains in the mountains at the end of April, their rate of increase for the first fortnight being about an inch per diem, and the total rise amounts by the end of June to between fifteen and sixteen feet, or half the entire height it attains, before any quantity of rain falls in Bengal. But from the latter period, when the rains there become more general, the medium increase of the water is about five inches a day; and by the end of July all the lower parts of Bengal contiguous to the Ganges and Brahmaputra, are under water. The Ganges decreases, at the average rate of half an inch per diem, from the end of November to the latter end of April, when it is lowest in Bengal, although the rains in the mountains have already begun to augment it in the upper part of its course. It is estimated that the quantity of water discharged by the Ganges, per second, in the dry season, is 80,000 cubic feet, and in the rainy season 405,000 feet; being an average, for the year, of 180,000 cubic feet per second. The quantity of earth brought down by the river is very great. The total annual discharge of mud is 6,368,077,440 cubic feet; the weight of which, according to Mr. Lyell, would exceed sixty times that of the great pyramid of Egypt.

The Ganges, like the Brahmaputra, the Amazon, and several of the European rivers, is subject to the phenomenon of the *bore*, or a rapid rush of the tide in a perpendicular face, up the river to a considerable distance. It is especially strong at spring tides. This occurs in all the mouths of the Ganges, and particularly in the Hoogly, through which branch it ascends as far as Culna, or even Nuddea, two hundred miles from the sea. The column of water is sometimes a dozen feet in height, near the mouth of the river, and often five feet high opposite Calcutta. Its appearance is that of a monstrous billow in a storm, or the dash of a foaming serf; its sound resembles that of a steamboat, but infinitely louder. Sometimes it takes one side of the river, sometimes the other; but it never extends over the whole basin. The time of its approach being well known, hundreds of boats may be seen rowing, as for life, towards the middle of the river, the crews urging on each other with wild shouts or shrieks, though at the moment no danger may appear; but soon afterwards the spectator is made sensible how necessary was the precaution, as the *bore* foams past with tremendous noise and velocity. But with all the difficulties and dangers of the Ganges, the English owe almost as much gratitude to it as the Hindoos themselves, for unquestionably to it they are indebted for their Indian empire. It is the great military highway, which enabled them eventually to conquer and maintain the rest of their possessions. Its value to the natives is incalculable. It is, and always has been, the grand route of communication and traffic in that country, throughout which the roads adapted for the conveyance of goods are very few. Not only the main stream, but all its tributaries from the north, are navigable for large or small boats, to the very foot of the mountains, for more than half the year; thus forming a most extensive system of inland navigation. The number of boatmen, in such a region of rivers, where almost every cultivator and fisherman is also occasionally a navigator, is immense. At the present time the gross amount of commerce embarked on its waters may be estimated at $70,000,000, independent of the inland trade, which has doubtless not a little increased with that of the population, and the greater degree of security afforded to commerce under British sovereignty.

It may be doubted if any river in the world has on its banks so many populous cities. Upon different branches of the delta are placed Calcutta,

Moorshedabad, and Dacca, the three great cities of Bengal, with a united population of about one million; besides Chinsura, Chandunagore, Hoogly, Cutwa, &c. Proceeding upwards we find Rajemahl, Monghir, Patna, Benares, Cawnpore, &c., with myriads of villages, temples, and bungalows. There are no bridges across the Ganges, after it has emerged from the mountainous region; and the natives who attempt to cross it where boats are not used, do so by means of empty water-jars. The native craft used in the Ganges vary greatly in different parts of its course. The flat clinker-built vessels of the western districts give way about Patna to lofty, deep, and heavy boats, which navigate the river thence to Calcutta. In the Sunderbunds, again, the shallowness of the streams requires that the vessels should be without keels; and the banks, in those places, being unavailable for the tracking-rope, rowing is the chief method of propulsion.

The Ganges, from Gangoutri to Sangor Island, is considered holy by Hindoos of all castes, though in some places much more so than in others. Hindoo witnesses, in British courts of justice, are sworn upon the water of the Ganges, as the Christians and Mussulmans are upon their sacred books. The water of the Ganges is believed by the Hindoos to purify from all sins; many ablutions and suicides accordingly take place in it; and the feet of the dying, when they reside within an accessible distance, are invariably immersed therein.

British India covers a surface of 1,000,000 square miles, being as large as that portion of the United States lying east of the Mississippi, and contains a population of about 150,000,000—seven times greater than that of the United States, and four times that of France. And if that country may be considered favored which contains within itself everything which is necessary for the maintenance of its inhabitants, India may be considered the most fortunate upon the globe. With abundance of rice for their daily food, of cotton for their clothing, and abundance of mud and leaves for their dwellings, the Hindoos were still poor. The occasional failure of their crops admonished them that something more was to be done, if they would not perish, than gather in their harvests and consume them; and the necessity they were thus under, of combination and of the interchange of productions, and of the different species of labor, led to new wants, as well as new means of supply.

Fortune here again smiled upon them; for their country, immense in its extent, various in its climates, and endlessly diversified in its hills and vales, mountains and forests, streams and rivers, answered all their demands. When cotton did not suffice for their wants or wishes, the juice of the mulberry-tree was spun for them into silk, by insects far more ingenious than themselves, and their sheep yielded warmer wool than that which the Greeks reported them to obtain from plants. They dyed their manufactures with a plant which the ancients called after them *indicus*, corrupted by the modern British into *indico*, and then *indigo*, and with lac munject, and other substances. Salt they obtained for their rice, from lakes, mines, encrusted earth, and the ocean; and sakkar, called by the Europeans *sucre*, sugar, &c., from the date-palm, which they had in common with the Africans and the northern Arabians, and from their own cane, with which they enriched the West Indies and other portions of the world. Wheat and barley from the Tartarian regions were early acclimatized in Southern India. They received coffee from the early Arabians, who brought it with them into Malabar. The tobacco plant, the Indian corn, the pepper and the potato of the New World found with them a congenial home, and also the opium of Asia Mi-

nor and Europe. The bread-fruit tree of the South Sea Islands, three of which will support a man during eight months of the year, was at their command; and the cocoa-palm, which produces cordage and thatch, food and oil, milk and toddy, with bowls to hold the nourishing or refreshing liquid, grows spontaneously on their coasts. They share with the natives of the Eastern Archipelago in their cloves, nutmegs, pepper, ginger, and other condiments; and the tea-plant, so long supposed to be the peculiar characteristic of China, grows wild in the woods of Eastern India, and in Nepaul. Plants, trees, fruits, and flowers of almost all kinds, they either possess indigenously, or have made them their own; they have a climate and a soil for the productions of the east, the west, the north, and the south, and their vast country might consequently seem intended for the garden of the world.

If the inhabitants of India are thus favored, it follows that the reverse cannot be the case, except from the abuse or neglect of the gifts of nature. In the fertility of the country, in its adaptation for all the productions which minister largely to the wants and wishes of the human race, and in the intelligence and industry of the people, most assuredly we may venture to predict their elevation, in the social scale, under a refined, enlightened, liberal, humane, and Christian government.

The first importation of cotton made into England from India was in 1789, and it came not direct, but through Denmark and Flanders, to the extent of 2,000,000 lbs. Since that period the importations into Great Britain have increased to 100,000,000 lbs. Cotton is not used in India merely for dress, but for carpets, curtains, beds, awnings, cushions, &c., &c. Flax is cultivated only for the oil, which is extracted from the seed. The consumption of cotton in India is estimated at 750,000,000 lbs., exclusive of amount exported.

Sugar was first used in England in small quantities, in the houses of the opulent, at the early part of the seventeenth century. In 1700, ten thousand tons were used in England, which increased gradually to two hundred and fifty thousand tons, the quantity which barely suffices for the wants of the present day. In 1790 the East India Company received some samples of East India sugar, with reports from their agents upon the different modes of cultivation, and other details; and the importations, which commenced in consequence, amounted, in 1847, to eighty thousand tons.

Indigo was an article of considerable importance, even in the earliest commerce of the East India Company, and grows luxuriantly from the equator to the thirtieth degree of latitude; but in India the best is produced in Bengal and Bahar, between latitude 23° and 27° north, and 84° and 90° of east longitude; in all other parts the product is inferior. The annual produce of all the provinces of Bengal is estimated at about 10,000,000 lbs., produced upon about 1,250,000 acres of land; the planters, upon an average, cultivating about 2,500 acres each.

Silk is another great staple of Indian foreign trade, and is also, like cotton, more useful in the clothing of the inhabitants than is commonly supposed. In 1792, the quantity of raw silk exported from India to Great Britain was 401,445 lbs., and in 1829 it had increased to 1,387,754 lbs. At the present it is estimated to be 2,000,000 lbs. The modern trade in raw silk, however, may be considered as yet in its infancy, as the culture of the mulberry, and the treatment and choice of worms in the various regions of India, are still matters of controversy. The total value of raw and manufactured silk, imported into Great Britain from British India, is estimated at $8,000,000.

Opium was, for a considerable period prior to the disturbances of 1839, an article of great and rapidly increasing export to China, from British India, the Malay Islands, and elsewhere. The white poppy may be said to take the place, in Indian agriculture, which the vine and olive occupy in that of Southern Europe. Opium was not early known as an article of commerce in India; but by the year 1786, the cultivation appears to have increased sufficiently, as to attract the attention of Lord Cornwallis to the drug as a means of producing revenue. The crop, like that of indigo, is very precarious. It was stated in evidence before a select committee of the British House of Commons, that the finest crops, and promising the most abundant produce, the country, in fact, being covered like a sheet with the white flowers of the poppies, may be destroyed in the course of less than an hour by a hail storm, thus rendering it difficult to determine what cultivation had been upon the ground.

Tobacco is produced in India in immense quantities, where almost every person smokes; but very little is exported, owing to the inferiority of the Indian article, Europeans having given but little attention to its cultivation. In various parts of India excellent tobacco is produced, and nothing is wanting but care and skill to enable the Indian cultivators to grow the best tobacco and obtain the best prices for it in the English market.

The cultivation of tea in India is yet in its infancy, although the actual importations of the Assam Company have proved beyond a doubt, that in that region it can be produced of a good and sound quality. Various parts of the Himalaya range, particularly the British provinces in the north-west, are likewise well adapted for the plant; and experiments are now in progress, which, in union with the Assam operations, may result in making an important addition to the commercial resources of India.

India, including Ceylon, exports about 13,000 tons of coffee, and this is within about 1,000 tons of the entire consumption of Great Britain. Nearly 200,000 tons, however, are required for the consumption of all the other importing countries collectively, and this quantity is chiefly supplied by America and Java. Wherever the plant has been fairly tried, whether in the Deecan or Bengal, it has succeeded to admiration; and perhaps the only real obstacle which it has had to encounter is the disadvantageous tenure of short leases in India.

At the present time Great Britain receives from India eight or nine million pounds weight of pepper, a great part of which she re-exports to other countries. The rice and wheat of India are both inferior to that of most other countries, for the same reason that its cotton and sugar are inferior, both being the produce of a rude husbandry and a rude preparation. Rice is scalded instead of being kiln-dried; and wheat is never dried at all, except in the sun. The quantity of wool exported from India is estimated at 6,000,000 lbs. A great variety of plants are used by the Hindoos for cordage; but *sunn* and *jute*, commonly called hemp by Europeans, though totally distinct from the true hemp plant, are the only exports for the purpose. Hemp, however, is a native of India, and grows wild in the north-western parts and in the Himalaya; but is used only for an intoxicating secretion, called *bang*. Frequent attempts have been made to introduce the Cochineal insect into India, but without any degree of success thus far. The other articles of export we will but barely allude to:—they are saltpetre, hides, ginger, nutmegs, mace, cinnamon, cloves, rhubarb, and other medicines. India is rich in mineral salts, and every year adds to the number of coal strata

discovered; and besides deposits of other precious stones, there are diamond mines of considerable value, both in the central and southern country. And it need hardly be added, that India teems with animal life in all its forms; but it is impossible, at the close of this article, to give even the most meagre catalogue. We have before alluded to those insects which the Hindoos set to spin clothing for them; at the sheep which are robbed of their wool for a similar purpose; at the elephants destroyed in vast numbers every year, that their teeth may minister to the luxury of Europe; at the countless cattle which give up their hides for the shoes, saddles, &c., &c., of distant countries. Isinglass is likewise obtained from their fish, together with sea-maws and other strange delicacies for the epicures of China. And it would indeed be an endless task to give an account of the natural forests of India, with the vast variety of woods, both useful and ornamental. The *teak*, on the coast of Malabar, supplies materials for the ship-yards of Bombay; and it is also found on the opposite coast of Coromandel, and in other parts of the country, more especially in Martaban, upon the eastern side of the Bay of Bengal. The *bamboo* grows spontaneously everywhere within the tropics, and is used for the construction of houses, bridges, boats, &c. It sometimes attains the thickness of two feet in circumference at the largest part, and from fifty to a hundred feet in height; a single knee of the plant being in this case sufficient to form a pail or bucket. Mahogany is now common throughout India, although introduced only in 1795, and is very little inferior to the finest production of Honduras. Maple, logwood, oak, fir, horse-chesnut, with almost all the European fruit-trees, succeed as well as in their native countries; and cocoanut, sandal, cinnamon, and a host of others, yielding gums, dyes, and condiments, are either indigenous or very early acquisitions. The natives are careless in the management of their forests; so much so, that in some districts, a deficiency, in several of the woods in common use, is already beginning to be felt; but there is also a national feeling among them, allied as usual to their religion, which studs the whole country with those shady groves, which are so welcome to the fainting traveller. The present world of the Hindoo is indissolubly linked with the two worlds of the past and the future. His misfortunes in this life are conceived by him to be the consequences of sins committed in a former state of being; and the actions of the good, he believes, to have relation to an existence beyond the grave. His ostensible purpose in marriage is to obtain a son to present the funeral cakes; but if children should fail—if no human being should be left for the rites of the dead—his *mango* and *tamarind* trees are still living things which pour the dew of heaven as libation to his manes, and obtain for him, from grateful hearts, the blessing of those who are ready to perish. To plant a grove, is to a Hindoo, what founding a hospital or building a church is to a European; but with this difference, that in the case of the former, the duty is more invariably performed, and never from worldly motives. When a European traveller, in journeying through the country, pitches his tent every morning on the green sward of some refreshing grove, eats at his pleasure of its fruit, and drinks of water from its wells of solid masonry, he does not, perhaps, think of the beautiful and kindly feeling, which, many years before, had prepared these things for his refreshment and repose. A native, however, invariably repays the founder with a brief prayer, or at least a soft and grateful thought; and this is all which the latter had mentally stipulated with the unknown objects of his bounty.

Art. II.—DEBTS AND FINANCES OF THE STATES OF THE UNION:

WITH REFERENCE TO THEIR GENERAL CONDITION AND PROSPERITY.*

CHAPTER IV.

Middle States—Pennsylvania.

The great State of Pennsylvania, although among the last of the dishonored States to suspend its payments, and the first to apply sound principles of finance to the correction of evils that had flowed inevitably from an unsound credit system, has, from the magnitude of her debt, as well as of her resources, and the general prominence of her position in the great Union, become almost a synonym for American discredit. Every foreign poetaster, scribbler, and smatterer in the effort to attract attention to what he imagines wit, sneers at American slavery and Pennsylvania repudiation. With none of those people is information very abundant or very accurate, and their vituperation is proportioned to their ignorance. While we deplore the latter, we may deal indulgently with prejudices envenomed by the consciousness that the rising glories of America must shortly overshadow the gorgeousness of the British empire, which holds millions of human beings in a degraded bondage, and with which ultimate repudiation is but a question of time. While the indebted States of America find, in their rapidly accumulating wealth, the means of meeting their debts with annually increasing ease, the British government has each year found the burden of her debt more onerous, and the necessity of diminishing its amount by taxing its interest more imperative. So onerous has the weight of her debt become, that even while thrones are tottering, and the armies of Europe are daily gathering strength, and assuming hostile attitudes, the necessity of cutting down the expenses of her armament has called into life a powerful party, pledged to financial reform. While the American States have nearly got through their financial embarrassments, the countries of the old world are about to encounter more serious difficulties. It is indeed not matter of rejoicing, that any nation fails in its contracts; but hopeless insolvency should teach bankrupts charity for those who falter for a moment, amid accumulating disasters, over which they have had no control.

The position of Pennsylvania grew out of three radical errors. 1st. The government system of internal improvements; 2d. unsound financial legislation; and, 3d. a corrupt connection with a rotten banking system. The operation of these three primary causes upon the State politics, inevitably produced that ruin and dishonor, from which an entire change in principles and policy have alone extricated her, and an abandonment of which will again as surely plunge her into difficulties. Pennsylvania early saw the necessity of internal improvements, by which her inland resources should be made available on her seaboard. In the year 1789, she commenced a series of improvements of various descriptions, projected at different periods, and

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* The first of this series of articles, on the Debts and Finances of the several States, was published in the Merchants' Magazine for November, 1847, vol. xvii., page 466, treating the subject of State debts generally; chapter ii. followed in the December number, same volume, and was devoted to the New England States—Maine and Massachusetts. Chapter iii., which was published in the March number, vol. xviii., page 243, related to New York. It is the intention of the writer to continue the series until it embraces every State in the Union.

which encountered various difficulties and embarrassments, that retarded the execution of some, and produced the abandonment of others. She early saw the necessity of connecting the great lakes with the seaboard; but not until the great work of New York was undertaken, did she fairly embark, in 1825, in that extensive line connecting the Ohio river with Philadelphia. From 1791 to 1828, there was expended in Pennsylvania, for roads, bridges, and inland navigation, $22,010,554; and works were then in progress that would, it was estimated, be completed in 1831, at an additional expense of $12,000,000. From that time expenditure was rapidly pushed, amid occasional efforts to stay the growing excitement. In 1829 a bill was passed, authorizing the expenditure of $3,511,000, which was vetoed, on account of the magnitude of the sum, by Governor Shultz. It was then cut down to $2,000,000, and passed.

The great work of Pennsylvania is the canal and railroad connecting Pittsburgh, on the Ohio, with Philadelphia. The Columbia Railroad, leaving Philadelphia, extends 82 miles to Columbia, on the Susquehanna. From Columbia a canal continues the line 172 miles, to Hollidaysburgh. From Hollidaysburgh a portage railroad conveys the merchandise of the canal 36 miles over the Alleghany ridge, at a height of 2,369 feet above the sea, and delivers it to the western division of the canal at Johnstown, which conveys it 105 miles farther, to Pittsburgh, making 395 miles. Some portions of the canal were finished and in operation in 1830; but the railways were not completed, and freight and passengers carried over the whole line, until 1834.

The first cost of the whole line was.....	$14,361,320 32
The expenditures, over receipts, prior to 1835.....	222,496 06
Cost prior to completion.....	$14,583,816 38
Annual interest on cost, 5 per cent.....	$729,191

The main line of State works, in its course through the State, from east to west, passes through the centre of population of the Commonwealth, traversing the richest agricultural districts in the United States, and connecting at different points with other canals and railways branching to the iron and coal regions. It passes through the fertile and densely populated counties of Delaware, Chester, and Lancaster, to the river Susquehanna, connecting with the West Chester railway in Chester county, and the York and Wrightsville railway and Susquehanna and Tide Water Canal at Columbia, on the river Susquehanna. At this point, nearly all the heavy tonnage from the city of Baltimore, as well as Philadelphia, to the Western States, is received upon the main line, from the Susquehanna and Tide Water Canal and the York and Wrightsville railway, and is carried through Pennsylvania 311 miles, to Pittsburgh. From Columbia, the line passes up the valley of the Susquehanna through the county of Dauphin, connecting with the Union Canal at Middletown, and the Cumberland Valley railway and the Harrisburgh and Lancaster railway, at Harrisburgh. At Middletown it receives the coal of the Swatara mining district, one of the richest in the State, from the Union Canal, and at Harrisburgh the rich products of the great Cumberland valley are shipped to market. Passing up the Susquehanna, to the mouth of the Juniata river, twelve miles above Harrisburgh, and 43 north-west from Columbia, it connects with the Susquehanna Canal from the north. By this tributary, in addition to the agricultural productions of northern Pennsylvania, it receives the tonnage of the great Wyoming, Shamokin, and Lykens

Valley anthracite, and West Branch bituminous coal fields; the trade of the great anthracite iron district in the vicinity of Danville and Bloomsburgh; the masses of white pine lumber from the sources of the north and west branches of the Susquehanna; and the superior malleable charcoal iron from the valley of the Bald Eagle. Here the canal leaves the Susquehanna, and passes up the valley of the Juniata through the counties of Perry, Juniata, Mifflin, and Huntingdon, to the town of Hollidaysburgh, at the eastern base of the Alleghany mountains. These counties produce large quantities of wheat for market, and are the seat of the manufacture of the celebrated Juniata iron. Huntingdon county alone has about twenty furnaces, thirty forges and bloomeries. A large portion of this iron is sent west on the State works, to be converted into bar and round iron at the Pittsburgh rolling mills. From Hollidaysburgh large quantities of bituminous coal are shipped eastward on the canal, to the cities on the seaboard, and to the iron works in the eastern and middle counties. From thence the main line extends west through the county of Cambria, and between the counties of Indiana, Armstrong, Butler, and Westmoreland, and through the county of Alleghany to the city of Pittsburgh, on the Ohio, at the confluence of the Monongahela and Alleghany rivers. For the last 125 miles, it traverses one continued bituminous coal field, filled with iron ore, and most of the distance rich in agricultural productions. In the valley of the Conemaugh and Kiskeminetas brine springs are abundant, and vast quantities of salt are annually manufactured, and sent upon the canal to market.

There was also 314 miles of lateral canals completed at about the same time, at a cost of $6,471,994. The law authorizing the construction of the main line was passed February 25, 1826, and the work commenced on the 4th July following. The whole line was opened to travel in 1834. The lateral canals were commenced about the same time, and opened in 1835. These works, and their cost, may be enumerated as follows:—

Main line.	Miles.	Cost.	Lateral works.	Miles.	Cost.
Columbia Railroad..	82	$3,330,127 55	Delaware Division	59.75	$1,238,027 69
East Division Canal..	172	4,594,146 03	Susquehannah Div.	39	1,039,216 77
Portage Railroad....	36	1,634,357 69	North Branch Div.	73.25	1,398,412 77
West Division Canal.	105	2,823,192 71	West Branch Div.	72	1,580,351 84
			Beaver Division..	24.75	481,282 98
			French Creek Div.	45.25	734,662 06
Total.....	395	12,381,823 98		314	6,471,994 11

These works constitute a very extensive system of improvements, but it was conceived without judgment, and executed without skill. In fact, it experienced the evils which almost universally attend works undertaken by governments. They were laid out less with a view to their ultimate success, than to benefit private lands; consequently better routes were commanded by private companies, which have necessarily drawn business from the State lines. The contracts were political jobs, shamefully performed for enormous sums, so that reconstruction and repairs have amounted to more than the original cost, and the whole will probably now be supplanted by a railroad.

Nevertheless, the evils arising from this source were as nothing as compared to the disasters which followed the policy adopted in 1836, in connection with the late National Bank. At the close of the year 1835 the above works were completed, and the State debt amounted to $24,589,743. The tolls on the public works in that year were $684,357, and the expenses $431,626, leaving $252,731 nett income, which was apportioned to the in-

terest on the debt, in addition to a tax of 2½ per cent on collateral inheritances, a tax on personal property, the auction duties, county rates and levies, escheats, and dividends on turnpike, bridge, and navigation stock. By stopping expenditure, and allowing the business of the works to develop itself, the swelling products of these taxes would soon have defrayed the interest, and permitted a relaxation of taxes. The State had reached a point in her improvement system, at which she could have suspended operations without loss. A scheme of direct taxation, to pay the interest on the State loans, which had been introduced under Governor Wolf's administration, was admonishing the people of the inconvenience of a public debt. Everything indicated that the further progress of the State improvements was to be deferred, till time had tested the productiveness of the finished works, and the increasing development of the State resources had invited and justified their further extension.

At this juncture, the charter of the late National Bank expired, and Congress refusing to renew it, the most strenuous exertions were used by the institution to procure a State charter, and the temptations that it held out to the State prevailed; but its favors proved fatal to the recipients. The State patronage, which had grown up under an expenditure of some $25,000,000 among jobbers and contractors, naturally produced a strong party in favor of the most extravagant extension of all the public works. Money in London and throughout the world was abundant, and the last loans which Pennsylvania had contracted in 1832–3, to complete her works to the extent of $2,500,000, had sold at a premium of $114 *a* $115 for $100 of 5 per cent stock, redeemable after 1860. The spirit of speculation was wild all over the country; and when the late National Bank stepped forward, with offers of near $10,000,000, to feed this excitement, it is no wonder that it prevailed, and the act of 18th February, 1836, was passed, entitled, "an act to repeal the State tax on real and personal property, and to continue and extend the improvements of the State by railroads and canals, and to charter a State bank, to be called the United States Bank." The first section of this act rescinded the system of taxes, which had been devised for the protection of the public credit. The tax on personal property and the county levies, which had produced $300,000, were repealed, while, by other sections, more than two millions of dollars, to be received from the bank, were appropriated at once to the prosecution of company works, and the commencement of new ones, under the direct charge of the State, and nothing appropriated to the sinking fund, in place of the repealed tax. To enable the Commonwealth to consummate this wild extension of improvements, the bank obligated itself, whenever required by law, to loan the State, against certificates of stock, payable in 1868, $6,000,000, giving par for the stock if the interest should be 4 per cent, and 10 per cent premium if the interest should be 5 per cent per annum. Also, to advance to the State, as a temporary loan, $1,000,000, at 4 per cent interest per annum, reimbursable at the pleasure of the State, within twelve months from date of the loan.

By the acceptance of the charter, the bank stipulated to pay the State of Pennsylvania—

$2,000,000 at such time as the government might require.
500,000 on the 3d March, 1837.
2,000,000 in instalments of $100,000 per annum for 20 years.

$4,500,000

In addition to this, the bank obligated itself to subscribe $675,000 to the capital stock of various railroad and turnpike companies, if requested to do so by the directors of the companies, any time within one year from the passage of the charter.

To sum up the whole in one sentence, the bank obligated itself to pay, as a bonus for its charter, $4,500,000, to purchase Pennsylvania stocks, at a high rate, to the amount of $6,000,000; to loan the State, at 4 per cent interest, for a period not exceeding one year, $1,000,000; and to subscribe to railroad and turnpike stocks, $675,000. Total, $12,175,000. The burdens thus imposed upon the bank were equal, in the aggregate, to at least $6,000,000 in cash. A singular evidence of the infatuation which marked those years!

Under the impulse of this act, and of the influences which effected its passage, a new series of improvements were begun at once, all of which, after the expenditure of many millions, now forming part of the public debt, and the cause of increased taxation, have been abandoned by the State, and have passed, most of them, into the hands of companies which have paid no consideration for them.

It even seems that the State has not limited its gratuities to the works thus commenced. The Beaver division, and the Wyoming line, on the North Branch, embracing forty-three miles of canal in actual use, and the French Creek Feeder, costing together $1,222,927 81, and all of them *finished* in 1835, have been given away to companies, and leave the State with a less extended system of improvements now than it had when the Bank of the United States was chartered.

Soon after the United States Bank undertook these heavy payments, the money market began to lower, and increasing stringency was followed by the universal suspension of 1837. Then it was that these stocks, which the institution derived from the State for its own notes, paid out on the public works, became its own support abroad. As it paid out the notes of the old institution for cotton in the Southern States, so did it give the credits of the new institution for State stocks, as well those of Michigan, Indiana, and Mississippi, as those which it had stipulated to take of Pennsylvania, and this cotton and these stocks formed a basis for its credits abroad; and when it failed, in October, 1839, about three years after it had purchased its charter of Pennsylvania, its agent at London pledged the following stocks for a loan to meet bills of exchange, which it had sold in New York on Hottingeur, of Paris, without authority, and for the sole object of breaking the New York banks, by drawing specie for the proceeds of the bills:—Pennsylvania 5 per cents, $5,117,906; Mississippi, Maryland, Indiana, Michigan, and Illinois stocks, $9,333,000. Total, $14,405,906.

The progress of the State works in Pennsylvania was marked by the declining credit of the State; and while the United States Bank was compelled to lean upon that sinking credit for its support, the stocks were no longer readily available abroad. The 5 per cent stock of the State, which had sold for 115 in 1833, would not sell at all in 1839. Inasmuch as that the State had repealed her taxes, and depended altogether upon borrowing to pay interest, the inability to borrow involved failure, and this becoming imminent in 1840, the State attempted to supply her exhausted means by selling to the banks the right to continue to refuse to pay their own debts. The necessity of some mode of taxation was, however, apparent, and, on the 11th June, 1840, was passed "an act to create additional revenue, to be applied

towards the payment of interest, and the extinguishment of the debt of the Commonwealth," estimated to yield about $600,000, the sum supposed sufficient, with the other resources of the Commonwealth, to liquidate the interest account, without further resort to loans for that purpose. This act was to continue in force five years, but was apparently more to raise credit than an actual revenue. The articles taxed were those purely of luxury, such as gold watches, pleasure carriages, household furniture exceeding in value three hundred dollars, together with bonds, bills, and notes of solvent obligors, bank stock, or stock of other corporations, yielding dividends of at least one per cent, salaries of public officers, and real estate. This act failed to produce the desired revenue. In place of $600,000, but $33,000 only was derived from its operation in the year 1841, in that year, and a new plan was proposed, which was a palpable violation of the Federal Constitution, which forbids the issue of bills of credit by the States. The old colonies had been in the habit of issuing that description of paper, and the immense evils which flowed from it had produced the clause in the Federal Constitution. Pennsylvania violated that clause, and has suffered severely from the consequences.

By the act of the 4th of May, 1841, entitled "An act to provide revenue to meet the demands on the treasury, and for other purposes," certain banks were authorized to subscribe for a loan to the Commonwealth, to an amount equal to a fixed per centage, therein stated, on their respective capitals; the amount of such loan to be placed in the treasury for the use thereof, in notes of said banks of the denomination of one, two, and five dollars. By the terms of the law, the loan was redeemable at any time within five years, and it was peremptory that it should be paid, and the notes authorized to be issued, withdrawn from circulation on or before the 4th day of May, 1846. The act also provided that the banks issuing said notes should receive them at par value in payment of debts due these institutions. It was thought that by making their redemption dependant on the faith of the State, as well as on that of the banks by which they were issued, a safe and reliable currency would be constituted, while the State would be largely benefitted by a loan at one, instead of five and six per cent, as on previous occasions.

The amount of this paper, called "relief notes," so issued, was originally $2,220,265, and these speedily depreciating and becoming the only medium in which the State received its revenues, completed its embarrassments. Without credit, and with a worthless depreciated paper currency, destructive to the industry and welfare of the State, bankruptcy was inevitable. The public works had been stopped, and an army of contractors clamored for pay. Their obligations were considered paramount, and to pay them a law was passed to sell the bank stock owned by the State. These had cost the Treasury $4,200,000, and they realized to it, $1,395,411 84 in 1843; and in February and April of the same year a law was passed authorizing the cancellation of $682,087 of the relief notes, followed in May, 1844, by a law ordering the cancellation of $200,000 of the relief notes per annum, which has however not been effected. In the meantime, the revenues of the State were utterly disordered, and in November, 1841, Governor Porter notified the banks that by the terms of their charters they were bound to loan a sum not exceeding 5 per cent of their capital to the Commonwealth, to hold themselves in readiness to do so on the 1st of the following February, and by these and other means he had accumulated in the Bank of Pennsylvania $859,000, to meet the February interest of 1842. That institution was by law the de-

pository of the State funds, and its agent for disbursing interest. Its credit becoming shaken, the Governor and State Treasurer endeavored to induce it to pay out the interest in advance, as well to quiet the public as to get the money out of the bank; but he received continued assurance from several of the directors, up to Friday evening, the 28th, of the bank's ability to pay over on the 1st of February. On Saturday, the 29th, however, in consequence of some of the other banks refusing to receive the notes of the Bank of Pennsylvania, a run was made on that institution, which was met until the usual closing hour of the day. But being satisfied that this run would be continued on Monday, and convinced that the funds of the Commonwealth had been paid out to meet other demands upon the bank, the governor procured an injunction, and recovered from the institution $500,000 of the State's money. The State interest was thus delayed for February, and August could not be paid at all. A law was passed, however, authorizing the issue of 6 per cent scrip to the creditors instead of money, and this was continued until the improved mode of assessments and revisions of the tax laws so far restored the finances of the State as to permit resumption in February, 1845. In 1844, the difficulties attending taxation induced a proposition to sell the State works, the main line for $16,000,000, and the Columbia Railroad for $4,000,000, without success.

By the law of 22d April, 1845, the tax list and mode of assessment was revised, and "upon all stages, omnibuses, hacks, cabs, and other vehicles, used for transporting passengers for hire, owned, used, or possessed within this Commonwealth, by any person or persons, or by any corporate body or bodies, and upon all annuities over two hundred dollars, except those granted by this Commonwealth or by the United States, and upon all property real or personal, [not taxed under existing laws,] held, owned, used or invested by any person, company or corporation in trust for the use, benefit, or advantage of any other person, company, or corporation, excepting always such property as shall be held in trust for religious purposes, three mills upon each and every dollar of the value thereof." Certain other descriptions of property were taxed two mills, and other descriptions one mill. The aggregate values so taxable in 1845 and in 1848, according to the triennial assessments, are as follows:—

Years.	Subject to three mills.	Subject to two mills.	Subject to one mill.	Total.
1845	$416,472,675	$286,222	$3,543,312	$420,302,209
1848	457,853,229	351,401	5,036,353	463,240,987
Increase	$41,380,554	$65,179	$1,493,041	$42,938,778

This is a most gratifying increase of the taxable property under a severe imposition. The collateral inheritance tax was by the same law raised from 2½ to 5 per cent, and the result has been an increase from $33,000 to $55,000 revenue.

The value of the property in Pennsylvania has thus, it appears, increased in three years by an amount equal to the whole of the debt which she owes upon the same general heads of assessment. The population of the State has also increased to an extent almost equal to that of any other. By the census of 1840 it was 1,724,033. The votes polled at the general election, 287,693. Since then the increase has been as follows:—

	1840.	1844.	1848.
Population	1,724,033	1,924,460	2,125,000
Actual votes polled	287,693	331,876	369,974

Thus the burden of the tax has been lightened in the double ratio of increasing numbers and swelling wealth.

The progress of the revenue is seen in the following table:—

REVENUE AND EXPENDITURES OF THE COMMONWEALTH OF PENNSYLVANIA FOR THE FISCAL YEARS ENDING RESPECTIVELY NOVEMBER 1843–44–45–46–47–48.

	1843.	1844.	1845.	1846.	1847.	1848.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Tax on real and pers'l estate..	553,911 38	751,210 01	1,318,332	1,445,112	1,380,781	1,350,129
Canal & R. tolls.	1,019,401 15	1,164,325 84	1,154,591	1,357,203	1,587,995	1,550,555
Lands.....	8,254 03	12,027 27	11,778	13,235	15,293	21,454
Auction com...	26,802 18	24,220 00	18,900	18,348	21,700	22,500
" duties..	62,170 10	68,145 41	71,248	68,290	53,831	56,153
Tax on bank div.	26,529 76	46,705 55	86,675	75,384	128,307	118,048
" corp. stks	38,510 79	52,379 88	80,147	94,892	124,355	140,359
Tavern licenses.	47,090 10	40,150 94	36,112	45,888	34,963	33,306
Retailers' "	63,857 24	64,847 75	72,908	109,473	143,684	131,165
Pedlers' "	1,550 87	1,483 93	1,427	3,372	2,291	2,184
Brokers' "	7,452 13	6,460 12	1,712	6,544	5,598	2,566
Theatre, &c., licenses.....	.....	.....	.....	1,180	930	557
Pamphlet laws..	310 25	338 34	99	392	398	305
Militia fines....	11 40	1,165 93	7,838	15,080	11,090	17,161
Tax on writs &c.	37,769 86	32,921 88	30,820	57,820	47,184	30,682
" c'n offi's..	5,074 17	1,833 54	2,596	12,355	13,611	19,394
Collat'l inh'e tax.	22,377 05	21,631 96	33,650	45,468	42,743	55,359
Canal fines, sales old mails, &c..	1,083 54	3,431 25	5,639	2,679	5,018	1,121
Tax on enrollm't of laws.....	1,900 00	1,100 00	1,600	2,095	3,420	1,965
Tax on loans...	.....	.....	55,788	110,083	118,977	113,431
Loans.....	.....	.....	2,150	12,490	220,089	140,000
Div. on turnpike and b'ge st'ks	19,161 29	26,075 96	1,199	1,253	1,076	1,950
Nicholson lands.	2,427 24	650 68	....	....	1,761	....
Accrued interest	.....	.....	2,335	4,204	2,043	2,808
Refunded cash.	.....	.....	8,577	15,535	2,242	14,538
Escheats.....	.....	.....	909	2,880	....	905
Fees of public officers.....	1,010 00	500 00	1,564	1,716	1,257	1,644
United States..	342 22	44 87	....	....	....	....
Miscellaneous...	60,313 27	7,425 68	1,458	6,605	6,379	1,526
Total.....	2,752 51	2,688 71	....	....	....	....
	2,009,022 53	2,331,765 43	3,010,062	3,529,057	3,977,025	3,831,776
	453,130 78	274,181 13	663,851	384,886	384,678	680,890
	2,462,153 31	2,605,946 56	3,673,914	3,913,943	4,361,704	4,512,667
Sales stock.....	1,395,411 84	.....	.....	.....	.....	.....

The expenditures of the State have been cut down under different regulations to allow of the application of a large amount to the debt. The item of common schools and ordinary government expenses indicate the most important reductions.

ANNUAL EXPENDITURE IN DETAIL OF THE STATE OF PENNSYLVANIA.

	1843.	1844.	1845.	1846.	1847.	1848.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Interest on loans	.....	50,542 74	1,784,182	1,984,623	2,002,240	2,005,740
Public improv..	747,263 92	719,126 08	661,340	694,505	690,575	996,592
Exp. of gov't..	295,480 74	254,453 11	239,304	216,632	200,113	230,550
Militia expend.	42,448 59	19,151 16	18,831	26,655	25,837	36,724

ANNUAL EXPENDITURE IN DETAIL OF THE STATE OF PENNSYLVANIA—CONTINUED.

	1843.	1844.	1845.	1846.	1847.	1848.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Pens. and grants	46,007 76	35,369 60	41,858	31,425	24,850	22,705
Charit'e inst'ns.	408,674 36	23,356 65	14,643	15,492	29,000	27,000
Com. schools...		267,560 88	284,331	193,221	196,804	176,590
Loans	82,717 34	20,269 10	26,033	25,356	209,064	148,378
Guaranty of int.	.....	.....	20,125	45,721	30,800	32,500
Domestic cred's.	1,261,236 78	95,837 35	14,761	7,501	5,133	13,246
Cancl'd r'f notes.	508,000 00	274,087 00	85,000	176,300	150,000	189,000
Damage on public works....	1,218 95	55,735 00	26,303	25,343	12,467	26,453
Special comm'rs	.....	.....	1,007	1,109	98	303
Revenue "	.....	.....	2,236	.....	.....	2,253
State library...	3,341 87	3,094 00	1,240	724	1,924	2,044
Public buildings and grounds..	5 50	1,123 56	1,137	810	1,802	3,054
East'n reservoir Penn. canal..	.....	.....	.....	12,219	16,515	2,978
Outlet lock at Wells' Falls..	.....	.....	.....	.....	16,550	1,600
Weigh lock at Beach Haven.	.....	.....	.....	.....	.....	6,958
Penitentiaries..	30,972 06	13,308 00	13,972	17,209	14,915	7,247
H. of Refuge...		4,000 00	4,000	4,000	4,000	4,000
Conveying convicts and fug..	809 42	1,264 97	711	145	679	763
Nicholson lands.	1,984 75	600 21	222	1,277	1,751	190
Escheats	912 85	237 18	799	557	35	771
Philadelp'a riots	.....	.....	45,252	13,019	61	39
City of Pittsb'gh	.....	.....	30,000	.....	.....	.....
Abate't of State tax.....	.....	.....	17,685	33,455	40,369	41,522
Premium on silk	3,425 76	62 71	18	.....	.....	.....
State magazine.	.....	.....				1,000
Miscellaneous..	12,314 52	2,247 00	4,027	1,958	5,223	5,168
Total.....	3,583,324 02	1,847,385 15	3,289,028	3,529,264	3,680,813	3,935,376
Balance on hand Dec 1.....	274,181 13	663,851 00	384,886	384,678	680,890	577,290
Total.....	3,857,505 15	2,511,226 15	3,673,914	3,913,943	4,361,704	4,512,667

As a general result, in four years there has been an excess of $87,349 30 in revenue over expenditure, including a payment of $600,000 relief notes, and $40,000 to domestic creditors. The amount of these relief notes now in circulation is $752,664, according to the amounts issued and since cancelled and funded. These continue to circulate at a depreciation, and therefore form the medium in which most taxes are collected, and they are paid out at par to the recipients of the State interest, subjecting them to loss in addition to the deduction of the three mill tax, and the State to discredit. The present governor in his message makes the most remarkable proposition after the experience of the State as connected with banks; namely, to sell new charters to those banks that require it, in consideration that they loan the State an amount sufficient to take these notes out of circulation. It is certainly in the highest degree desirable that the circulation should be cleared of such depreciated paper; but in face of the experience of the State, is it wise to barter the State's honor with institutions with which connection hitherto has proved so disastrous? In every case where Pennsylvania has accepted pecuniary aid from corporations as a condition for granting privileges, she has suffered in the end.

The stock of the State of Pennsylvania is invariably registered in the name of the proprietor, and can be transferred only by him in person or by his attorney. The transfers are effected at the Bank of Pennsylvania, in Philadelphia, where the interest, 5 per cent, is payable half-yearly, namely, February 1st and August 1st. The principal is payable at the State Treasury, Harrisburgh. Since the resumption of the payments in February, 1845, this interest has been paid to a considerable extent in relief notes that are depreciated. That is to say, whatever notes are in the Treasury, received for State dues, are paid out *pro rata* for dividends. The depreciation on this paper for the February interest last amounted to $12,500, and from the amount is also deducted the three mills per annum, or 1½ mills every six months on every $100. The amount actually netted just now to the holder of the stock after these deductions is $2 35 per cent half yearly, or $4 70 per cent per annum. It is the case, that inasmuch as that the revenues are collectable every month, the State has usually to anticipate a portion of her income. Thus the February payments are about $1,000,000, and there was in the Treasury December 1, $577,290. The collections in December and January were about $200,000, consequently the Executive is obliged to borrow $200,000 to complete the February payments, and this is reimbursed when the public works are in operation in the spring. A law for this purpose has recently passed the Legislature. Had it not been for the extraordinary repairs required during the past year, from causes inherent in the misconstruction of the works, the surplus on hand would doubtless have accumulated to an extent that would have obviated this necessity. The expenditure on the works last year was very great, reaching $1,067,394, exceeding the estimates by $223,860. This excess is explained by the fact, that the floods of 1847 were more extensive than supposed, and the expenses were increased by subsequent breaches. Of the above amount, the sum of $381,796 56 was for extraordinary repairs, not entirely chargeable to the current year, for $326,545 37 was used for repairing damages by the floods of 1847. The rebuilding of the Freeport aqueduct cost $44,115. The general expenditures were of course increased by the enhanced price of labor and materials, at points where it was requisite to use all energy in repairing breaks to prepare for the spring trade, the advantages of which would have been entirely lost to the State by any delay. The funding or cancelment of the "relief notes" would also relieve a pressure upon the State finances, as well as the creditors, from an imposition altogether discreditable.

The progress of the State debt for many years has been as follows :—

AGGREGATE PENNSYLVANIA STATE DEBT.

Years.	Funded.	Relief notes.	Int'st certificates.	Dom. creditors.	Total.
1836.....	$24,265,303	.....	.....	.....	$24,265,303
1837.....	24,329,004	.....	.....	.....	24,329,004
1838.....	25,327,003	.....	.....	.....	25,327,003
1839.....	25,229,003	.....	.....	.....	25,229,003
1840.....	29,914,003	.....	.....	.....	29,914,003
1841.....	33,301,013	.....	.....	.....	33,301,013
1842.....	32,674,356	$2,220,265	$914,442	$1,514,332	37,319,395
1843.....	36,366,099	2,085,059	1,787,454	253,096	40,491,708
1844.....	34,830,134	1,638,264	2,614,601	206,461	39,290,461
1845.....	34,812,315	1,438,178	4,453,373	150,000	40,803,866
1846.....	36,739,267	1,258,572	2,888,803	99,751	40,896,393
1847.....	38,858,970	1,081,664	752,667	96,275	40,789,577
1848.....	39,220,325	931,664	380,865	96,095	40,628,949
1849.....	39,393,350	752,664	239,404	89,318	40,474,736

In December, 1835, when Governor Wolf retired from office, two months before the incorporation of the Bank of the United States, the State debt of Pennsylvania was $24,589,743 32. It is now, exclusive of the amount received as a deposit from the general government, $40,424,736, making an increase of the State debt, in ten years, of $16,396,649 90, notwithstanding the receipt, in the meantime, of $2,867,514 78 of surplus revenue from the United States, and of $3,446,780 21 as premiums for bank charters.

Here is an increase of $15,834,993 of debt, for which the State has obtained nothing whatever. If to this be added the United States surplus fund, the bank premiums, the taxes, and the proceeds of stock sold, the amount will be as follows:—

Increase of debt	$15,834,993
United States surplus	2,867,514
Bank premiums	3,446,780
Taxes paid from 1845 to 1849	7,320,000
Proceeds of bank stock sold	1,395,411
Total	$30,864,698

For this enormous sum the State has not only nothing whatever to show, but has parted with bank stock that yielded a handsome income, and also with public works that were valuable; and Governor Johnson now proposes to borrow $1,000,000 more to recommence the system by extending the North Branch Canal! The result of the late election, by changing the predominance of parties in the control of State affairs, will work a radical change in the condition of the State finances. Thus we have seen that with the speculations that commenced with the operations of the United States Bank to obtain its charter, the State expenditure upon State works was pushed to a ruinous extent. The same influence produced the rapid multiplication of banks, which increased as follows, exclusive of the United States Bank:—

BANKS OF PENNSYLVANIA.

		No.	Capital.	Loans.	Specie.	Circulation.	Deposits.
January,	1830..	32	$12,810,333	$21,474,173	$2,414,669	$7,308,368	$6,841,448
"	1834..	44	18,991,863	38,855,930	2,799,825	11,657,982	14,041,521
"	1837..	49	24,659,361	46,427,033	2,999,031	14,856,214	13,577,986
November,	1838..	49	25,155,783	38,696,788	3,612,253	11,792,948	10,135,863
January,	1848..	47	16,192,258	33,870,857	4,638,073	14,336,196	15,110,433

Since the great explosion of credit in 1837, the policy of the State has been to curtail bank credits, diminish the debt as fast as possible, and to pay taxes for that purpose. In accordance with that general policy, new charters have been steadily refused, and the applications of old ones for renewal rejected. Consequently, many charters have expired; and although many succeeded in getting bills through the Legislature, they were promptly vetoed by Governor Shunk. An extended and powerful interest was thus created against the Executive, which aided in effecting the change that took place, by a popular majority of 350 votes, in October last, in the State government. A bill, renewing four charters with an aggregate capital of $1,980,820, already expired, was vetoed in April, 1848, by Governor Shunk. In addition to these are thirteen expired charters, with a capital of $14,050,000, embracing the Girard and the Bank of Pennsylvania, which ruined the State credit in 1842, together with six charters, capital $807,945, that expire in 1849, and thirteen others that expire before 1852. Altogether there are twenty-seven applications for new charters, capital $18,855,787; twenty-two for renewals, capital $9,000,000;

and seven from old banks, for an increase of $1,787,000; making fifty-seven applications for charters, for $29,603,287, that, having influenced the removal of the restraint of Governor Shunk's veto, expect success from Governor Johnson; and he, in his message, indicates the policy of selling them the privileges, for the means of taking up the "relief notes." The immorality of this policy can scarcely be questioned. If it is right that banks should be chartered, it is not right to make them pay for exercising a right. If it is not right, then we have the spectacle of a sovereign State willing to do what is wrong for a paltry sum of money. It has also been proposed in Pennsylvania to pass a general banking law like that of New York, by which no charters will be renewed, but all allowed to bank by depositing State stock at par, to the full amount of the circulation, as security. The actual debt of the State is now as follows:—

PENNSYLVANIA STATE LOANS.

TABLE SHOWING THE SEVERAL LOANS OF THE COMMONWEALTH, AND THE ACTS OF ASSEMBLY AUTHORIZING THEM, THE RATE PER CENT INTEREST OF EACH, THE PERIODS WHEN REIMBURSABLE, AND THE AMOUNTS OF THE SAME AS THEY RESPECTIVELY STOOD ON THE 1ST DAY OF DECEMBER, 1848.

Stock loan, per act of	Rate of int'st.	Reimbursable.	Amount.
April 2, 1821.....	6	June 1, 1841.....	$26,951 80
" 1, 1828.....	5	December 1, 1846.....	295,461 15
" 9, 1827.....	5	" 1, 1850.....	999,311 15
March 24, 1828.....	5	" 1, 1853.....	1,998,407 09
Decem. 18, 1828.....	5	January 1, 1854.....	798,474 64
April 22, 1829.....	5	December 1, 1854.....	2,197,849 55
December 7, 1829.....	5	April 1, 1847.....	50,000 00
March 13, 1830.....	5	March 4, 1858.....	3,998,395 47
" 21, 1831.....	5	July 1, 1856.....	2,481,711 83
" 30, 1831.....	5	" 1, 1856.....	299,096 43
" 30, 1832.....	5	" 1, 1860.....	2,343,777 64
April 5, 1832.....	5	" 1, 1860.....	300,000 00
February 16, 1833.....	5	" 1, 1858.....	2,540,010 56
March 1, 1833.....	4½	April 10, 1863.....	200,000 00
" 27, 1833.....	5	July 1, 1858.....	529,922 74
April 9, 1833.....	5	March 28, 1861.....	120,000 00
" 5, 1834.....	5	July 1, 1862.....	2,265,059 75
" 13, 1835.....	5	" 1, 1865.....	959,540 79
January 26, 1839.....	5	" 1, 1859.....	1,195,928 93
February 9, 1839.....	5	" 1, 1864.....	1,278,375 99
March 16, 1839.....	5	" 1, 1864.....	100,000 00
" 27, 1839.....	5	" 1, 1868.....	469,679 22
June 7, 1839.....	5	August 1, 1859.....	49,998 25
" 27, 1839.....	5	June 27, 1864.....	4,134,332 70
July 19, 1839.....	5	July 1, 1868.....	2,053,938 42
January 23, 1840.....	5	January 1, 1865.....	868,873 13
April 3, 1840.....	5	August 1, 1864.....	860,680 89
June 11, 1840.....	5	July 1, 1870.....	1,939,583 65
January 16, 1841.....	6	August 1, 1846.....	800,000 00
March 4, 1841.....	6	July, Nr. 1847.....	22,335 06
May 5, 1841.....	5	At ex. c. bk. cs.....	565,875 96
" 6, 1841.....	6	June 1, 1846.....	903,048 20
April 29, 1844.....	5	March 1, 1849.....	59,551 46
" 16, 1845.....	5	August 1, 1855, fund. cer.	4,489,463 79
January 22, 1847.....	5	May 1, 1849.....	62,500 00
April 11, 1848.....	6	April 11, 1853.....	135,214 00
Loan, (relief.)			
May 4, 1841.....	0	May 4, 1846.....	752,664 00
Int'st certificates outstdg.			
July 27, 1842.....	6	August 1, 1843.....	44,681 60

PENNSYLVANIA STATE LOANS—CONTINUED.

March	7, 1843.....	6	August	1, 1846.....	83,496 54
May	31, 1844.....	5	"	1, 1846.....	92,611 38
	Total amount of loans.....				$40,366,803 76
	Domestic debt.....				89,318 90
	Total.....				$40,456,122 66

Of this stock debt the amount over due appears to be $3,021,249, besides the amount due at the expiration of certain charters, which amount, on the principle proposed by Governor Johnson of selling charters, may never become due. It then follows that the stock debt draws interest as follows:—

$1,887,549 06....	6 per cent annual interest....		$112,252
37,305,801 18....	5 " "		1,865,290
200,000 00....	4½ " "		9,000
$39,393,350 24			1,986,542

In July, 1842, the Auditor of that State submitted to the Senate a return of the residence of the holders of the debt of that State.

HOLDERS OF PENNSYLVANIA STOCK.

Held by citizens of that State.....	$9,635,613 47
" " other States.....	1,080,537 00
" subjects of Great Britain.....	20,026,458 00
" " other foreign States.....	3,711,748 00
Total funded debt.....	$34,674,356 47

There is no return recently made of the manner in which the stock is now held. It is probable, however, that the proportion is not changed, and that very considerable sums are still held abroad. The price now in the market is 78, and French fives in Paris are 72.

The interest certificates, issued as above for interest, have been disposed of as follows:—

INTEREST CERTIFICATES.

Due.	Amount issued. *Dollars.*	Funded. *Dollars.*	Received for dues. *Dollars.*	Outstanding. *Dollars.*	Certificates due and not claimed. *Dollars.*
August, 1842	863,033 76	813,073 24	5,641 42	44,319 10	255 10
February, 1843	964,016 97	822,930 23	55 00	41,031 74	700 36
August, 1843	914,737 03	872,172 03	100 00	42,464 80	681 86
February, 1844	916,092 71	870,024 17	1,071 73	44,996 81	2,094 28
August, 1844	920,693 54	872,928 43	100 50	47,614 57	716 77
To B. Eagle & Spring C. Co.	5,000 00	2,328 75	2,308 75	362 50	.....
Dansville and Pottsville R.	15,000 00	8,183 33	6,816 87	.....	.....
Total.....	4,493,574 00	4,261,690 22	16,094 27	220,789 52	4,448 38

Should the policy be adopted of substituting a general banking law like that of New York for bank charters, a demand equal to $10,000,000 would immediately arise for the stock of Pennsylvania, and thus advance the price probably to a level of the 5 per cent of the Federal Government, namely, about par; and by so doing, as in the case of New York, draw some millions of the stock from foreign hands into those of the State bankers, by which operation an immense saving would be effected. Thus the above table gives about $25,000,000 owned out of Pennsylvania, being $1,250,000 interest per annum, equal to

300,000 tons of coal. If one half that stock should be drawn into the State, instead of paying away $600,000 per annum for nothing, the value would be retained in the State and accumulate its resources yearly, adding to its taxables and lightening the general burden. It would seem, however, as is usually the case when they prevail to any extent, that chartered influences are too strong to allow of any movement that militates against their interests, more particularly as appears to be the case, that the interests of the stockholders are not strongly represented in the State—a fact recognizable in the payment to them of the relief notes and taxing the debt.

It is to be observed, that the immense losses and expenditure of the State of Pennsylvania to develop her resources, have been of very little avail. As, for instance, her coal trade has grown up from nothing in 1825, to 3,000,000 tons per annum. Of this vast amount, but 192,511 tons came to Philadelphia upon the State works; the Union, Lehigh, Schuylkill and Delaware canals, and the Reading Railroad, all private works, delivered the remainder.

Art. III.—THE PROPOSED RAILROAD ACROSS THE ISTHMUS OF PANAMA.

Those who have read the Cosmos of Baron Von Humboldt, must be deeply impressed with the novel, striking, and very interesting views there presented of the future progress and development of civilization in this country, as dependent upon and connected with the physical features of the vast continent we inhabit.

Without startling our practical readers with opinions that appear to be merely speculative or theoretical, (however true and pleasing we may regard them,) we will remark that it cannot escape the notice of the most superficial observer, that there must necessarily be a great dissimilarity between the wants, resources, means, and appliances of two people equally advanced in knowledge and the arts, one of whom exists in a compact and closely settled community, while the other inhabits a country of immense extent and of unbounded resources, the greater portion of which still remains to be conquered from the rude hand of nature. The most hasty glance at our present condition will suffice to satisfy the mind as to the real dependence of our national progress, both in form and amount, upon certain prominent and characteristic geographical peculiarities, such, for instance, as the broad and deep lakes of the North, the interminable rivers of the West, the lofty mountains of our central States, and the fertile savannahs of the South. It is undoubtedly true, that viewed in relation to these controlling causes, to favor the operation of which we seem to be eminently adapted by our spirit of enterprise, equally bold in conceptions and execution, the future development of society in the new world, offers to the contemplative mind the widest field of expectation and of wonder.

We already witness many striking effects of those causes. To some of them we have made a passing allusion. Another of these effects, and one immediately connected with the subject before us, is the character of those undertakings, whether public or private, by which the means of intercommunication, for the purposes of trade and travel, are established between remote parts of our territory. This character becomes more marked and peculiar, as the population of the country, and consequently its wants, are increased and ex-

tended. To meet these wants, and to bring out, in a form of practical utility, the hidden means by which they may be supplied, there is never wanting some bold and ingenious mind that sees the true connection of things however apparently distant, and is ready to propose a scheme of improvement, by which that connection may be established.

A ready example of this occurs to every one in the junction of the Northern Lakes with the Atlantic ocean, and in the name of De Witt Clinton, the author of this project, from the execution of which his name has received a great and enduring fame. But such projects will always encounter, in their beginning, the opposition of less ardent and enterprising minds. They are, in fact, somewhat in advance of their time; and we, who read the history of their slow progress towards completion, have to admire no less the Antean vigor with which their authors rise up after occasional defeat, than the grandeur of the schemes themselves, so far outstripping the calculations of ordinary men.

It is worthy of remark that such grand projects rarely have their origin in the scenes of business, and of merely practical life. Commerce is a science, as well as an art—and it is not to be expected that those whose attention is engrossed by plans of individual profit and advantage, or by the multiplied and complicated details of the counting room, should always be possessed of the taste and leisure for studying the principles upon which their art is founded. Accordingly, the whole history and literature of commerce show that those ideas and rules of action that regulate the commercial intercourse between nations, those combinations and discoveries that open new channels of trade, and those theories that comprehend and explain the laws and principles of commerce, are derived from the man of thought and reflection—from the political economist, whether a student in his closet, or a statesman in office.

In the report of Mr. T. Butler King upon the Railroad across the Isthmus of Panama, which we intend to lay in a brief manner before our readers, we see the final step in the achievement of a great undertaking, precisely similar in character to those of which we have just spoken.

When Mr. King first brought forward his plans for a system of mail steam packet communication between New York and Chagres, and between Panama and Oregon, he was compelled to invite private enterprise by offers of assistance from the government, to secure the co-operation of government by urging the great and serviceable addition that these vessels would prove to the naval force of the country in time of war, and to overcome the opposition of his associates in Congress by arguments and persuasions addressed to their pride, their interest, and their local connections. He foresaw that this railroad was sooner or later to follow as the consequence of the mail packet system—that it would very soon be perceived that the chain of communication (to use the common figure) wanted yet a single link to be complete—and that the argument at present applied with so much force, "we have now established a steam communication on the water between New York and the Columbia river, but in order to make it perfect we must have some easy, certain, rapid, cheap, and permanent means of transit across the isthmus, without which our lives are subject to great expense, irregularity, and inconvenience,"—that this argument, so valid and so obvious, would be immediately stated.

The enterprise, which, a few years since, was regarded by many as one of doubtful utility, and at least as being a little premature, is likely to prove one

of the most magnificent schemes of the age, and we congratulate the author of it upon his well deserved success and honor.

But in the report before us, Mr. King has advanced far beyond his former position, (in respect, we mean, to this route across the isthmus,) by presenting some new and very remarkable views as to the effect of this road upon the general commerce of the world, of which it is to make this nation the great central seat and agent. These views, like those of Mr. King upon steam communication with China, are founded upon commercial statistics, collected with industry, and compared together with originality. From their combination, and a study of their common relations, Mr. King has been led to the discovery of new laws and channels of trade; and if the experience of the future should establish the correctness of those principles of commercial intercourse which he has been the first to announce, his name will be hereafter permanently associated with an important epoch in the commercial history of this country.

We will proceed to give a brief synopsis of the report.

It is based upon a memorial of Wm. H. Aspinwall, John L. Stephens, and Henry Chauncey, praying for aid from the government of the United States to construct a railroad across the Isthmus of Panama. The memorialists have procured a charter from the government of New Grenada, (originally granted to a French company, but afterwards forfeited,) which secures to them very extensive privileges on the isthmus, provided the work shall be completed within eight years, and be commenced within eighteen months from the date of their grant. The memorialists are unwilling to engage in a work of such magnitude, and so remote from our own borders, without efficient aid from the government; and the object of Mr. King in his report is, to show that it is the wise policy to extend such aid, and to point out the very striking practical benefits that are certain to result from the construction.

The first step in the course of the argument is to mention a fact, explaining the superior advantages possessed by Great Britain over ourselves, and other nations, by means of her maritime position. This part of the report is too interesting to be abbreviated.

"Great Britain is principally indebted to her skill in commerce and manufactures for her commercial ascendancy, but she is also indebted in no small degree to her *position*. She not only has the ports of the continent of Europe as her neighbors, but she is *fifteen hundred miles*, or two weeks, nearer than we are *to all the other ports of the world, except the Atlantic ports of the American continent north of the equator and the West Indies*. The cause of this is, that all vessels bound from our ports to places south of the Line, or beyond either of the capes, cross the Atlantic to the Azores or Western Islands, for the purpose of finding favorable winds, while vessels from British ports run down to the same latitude and longitude without the necessity of crossing the ocean, to avail themselves of the same advantages. This difference in favor of British commerce, running through our entire existence as a nation, has been a most serious obstacle for our merchants and navigators to contend with, and has of itself been a vast item in favor of the profits on British capital. Lieutenant M. F. Maury, superintendent of the Observatory, has, within two or three years past, proposed a more direct route for vessels bound from our ports to ports on the Atlantic side of the American continent, south of the equator and beyond Cape Horn, which will save about one thousand miles of the distance to those places, but all vessels bound round the Cape of Good Hope will be compelled to pursue the old route.

TABLE SHOWING THE SAILING DISTANCES FROM NEW YORK AND LIVERPOOL TO THE PRINCIPAL PORTS BEYOND OR AROUND CAPE HORN AND THE CAPE OF GOOD HOPE.

	From Liverpool.	From New York.
To Calcutta via Cape of Good Hope..miles	16,000	17,500
" " Horn.....	21,500	23,000
Canton " "	20,000	21,500
" " of Good Hope.....	18,000	19,500
Valparaiso via Cape Horn.....	11,400	12,900
Callao "	12,000	13,500
Guayaquil "	12,800	14,300
Panama "	14,500	16,000
San Blas "	16,300	17,800
Mazatlan "	16,500	18,000
San Diego "	17,000	18,500
San Francisco "	17,500	19,000

"The construction of the proposed railroad across the isthmus will not only do away this advantage over us, now possessed by European commerce and navigation, but will turn the tide in our favor.

"The average distance from Liverpool, London, and Havre, to Panama, is four thousand seven hundred miles; from New York the distance is two thousand miles; from Charleston one thousand four hundred; from Savannah one thousand three hundred; from New Orleans and Mobile one thousand six hundred; making an average distance from our principal exporting Atlantic and gulf ports of about one thousand six hundred miles to Panama. If, therefore, we admit, for the sake of the argument, that European commerce with the Pacific ocean, the East India and China seas, will take the new route across the isthmus—these will be a difference of three thousand one hundred miles in our favor. Add to this the one thousand five hundred miles now against us, and we find that we shall gain by this channel of communication, in our relative position to those parts of the world, a distance of four thousand six hundred miles, or of forty-two days. *In the voyage out and home* we shall have the advantage of our European competitors of nine thousand two hundred miles, and eighty-four days, as compared with the present route."

The gain to us in time and distance, here stated, is limited by the supposition that European ships will carry their own goods as much as formerly, intended for the Pacific markets, and will go freighted to the eastern terminus of the proposed railroad. That, however, adds Mr. King, will not be the case.

On the contrary, "the large number of vessels bound to the ports of the United States for cotton, rice, tobacco, lumber, flour, provisions, &c., will bring the freights for those markets as ballast or cargoes, whence they will be conveyed to the railroad in our own fast-sailing coasting vessels and steamers, which will also bring to us the commerce of the Pacific. This is very obvious, because, if European ships were to sail with full cargoes direct to the railroad, they would run the risk of being compelled to return without freight, or come to the United States for it. We are so much nearer to the isthmus than the ports of Europe, and our means of communication and information will be so frequent and certain, our lines of steamers and coasting vessels so constantly on the alert, and will move with such celerity, that heavy European freighting ships will find it quite impossible to compete with them. If this view of the subject be correct, and we believe it is, the construction of this railroad will throw into our warehouses and shipping the entire commerce of the Pacific ocean. Our ports are on the very way-side from Europe to the Isthmus of Panama, and our lines of steamers and packet ships across the Atlantic will come laden with the freights destined for that channel of trade. The commerce, therefore, from Europe to the East Indies, China, and the west coast of this continent, will be forced to pursue the old route or fall into our hands. The following table shows, stronger than language could express it, the saving in distance and time which will result to our commerce from the

completion of this work, and the advantage it will give to us over our commercial rivals.

		New route from New York.	Old route from New York.	From Liverpool.
To Calcutta via....	Cape of Good Hope....miles	....	17,500	16,000
	" Horn.....	....	23,000	21,500
	Isthmus of Panama.....	13,400	.....	.....
Canton via.....	Cape of Good Hope.....	....	19,500	18,000
	" Horn.....	....	21,500	20,000
	Isthmus of Panama.....	10,600	.....	.....
Shanghae via...	Cape of Good Hope.....	....	20,000	18,500
	" Horn.....	....	22,000	20,500
	Isthmus of Panama.....	10,400	.....	.....
Valparaiso via..	Cape Horn.....	....	12,900	11,400
	Isthmus of Panama.....	4,800	.....	.....
Callao via.....	Cape Horn.....	....	13,500	12,000
	Isthmus of Panama.....	3,500	.....	.....
Guayaquil via...	Cape Horn.....	....	14,300	12,800
	Isthmus of Panama.....	2,800	.....	.....
Panama via.....	Cape Horn.....	....	16,000	14,500
	Isthmus of Panama.....	2,000	.....	.....
San Blas via....	Cape Horn.....	....	17,800	16,300
	Isthmus of Panama.....	3,800	.....	.....
Mazatlan via....	Cape Horn.....	....	18,000	16,500
	Isthmus of Panama.....	4,000	.....	.....
San Diego via...	Cape Horn.....	....	18,500	17,000
	Isthmus of Panama.....	4,500	.....	.....
San Francisco via Cape Horn.....		....	19,000	17,500
	Isthmus of Panama.....	5,000	.....	.....

"These figures show that the new route across the isthmus will bring us more than an average of ten thousand miles nearer to the East Indies, China, and the ports of South America on the Pacific, and will actually, for all the purposes of navigation and commercial intercourse, bring the ports of the west coast of Mexico, California, and Oregon fourteen thousand miles nearer to us than they now are! With steamers on each side of the isthmus that will go fifteen miles an hour—a speed ascertained to be quite practicable—passengers, the mails, and small packages of light and valuable goods may be conveyed from New York to San Francisco in fourteen days, and from our southern ports in less time. Thus bringing these remote points, for all practical purposes, nearer than New York and New Orleans were twenty years ago.

"The average saving of time in our commercial intercourse with the west coast of America, China, and the East Indies, which will be effected by the construction of the proposed railroad, is exhibited in the following table:—

TABLE SHOWING THE SAVING OF TIME FROM NEW YORK, BY THE NEW ROUTE VIA THE ISTHMUS OF PANAMA, AS COMPARED WITH THE OLD ROUTES VIA CAPE HORN AND THE CAPE OF GOOD HOPE, TO THE PLACES THEREIN NAMED, ESTIMATING THE DISTANCE WHICH A COMMON TRADING SHIP WILL SAIL PER DAY TO BE ONE HUNDRED AND TEN MILES, AND CALCULATING FOR THE VOYAGE OUT AND HOME.

	1. Miles.	2. Days.	3. Miles.	4. Days.	5. Miles.	6. Days.	7. Days.	8. Days.
To Calcutta.....	17,500	318	23,000	418	13,400	244	74	174
Canton.....	19,500	354	21,500	390	10,600	192	162	198
Shanghae.....	20,000	362	22,000	400	10,400	188	174	212
Valparaiso.....	.....	...	12,900	234	4,800	86	...	148
Callao.....	.....	...	13,500	244	3,500	62	...	182
Guayaquil.....	.....	...	14,300	260	2,800	50	...	210
Panama.....	.....	...	16,000	290	2,000	36	...	254

1. Distance via Cape of Good Hope. 2. Length of passage out and home. 3. Distance via Cape Horn. 4. Length of passage out and home. 5. Distance via Isthmus of Panama. 6. Length of passage out and home. 7. Saving via the isthmus over the route via Cape of Good Hope, out and home. 8. Saving via the isthmus over the route via Cape Horn, out and home.

To San Blas.....	.....	...	17,800	322	3,800	68	... 254
Mazatlan.....	.....	...	18,000	326	4,000	72	... 254
San Diego.....	.....	...	18,500	336	4,500	82	... 254
San Francisco.....	.....	...	19,000	344	5,000	90	... 254

"The employment of steam vessels would render the contrast in our favor still more striking. But the difficulty and expense of transporting heavy merchandise across the isthmus *in its present state*, and the distance round the capes, render the employment of steam in *the carrying trade* to the East Indies, China, and the west coast of America, quite impracticable. The most that can be done is to employ steam packets in the conveyance of the mails and passengers. Let this railroad be completed, however, and no part of the world will present as great advantages for the successful use of steam in ocean navigation as the Pacific. Coal is found on all its borders, both American and Asiatic, in the greatest quantity and perfection. Its quiet waters seem to indicate steam as the proper agent to be employed in their navigation. The spirit and genius of the American people, and the extent of our territory on the west side of the continent, proclaim clearly enough that we are to become the legitimate heirs of a vast commerce that shall spread fleets of steam ships over the bosom of this peaceful ocean.

"Steamers, with a speed of twelve miles an hour, would go from New York via the isthmus, (throwing out the fractions)—

To Calcutta in.....days	47	To Panama in.....days	7
Canton in.....	36	San Blas in.....	12
Shanghae in.....	35	Mazatlan in.....	14
Valparaiso in.....	17	San Diego in.....	16
Callao in.....	12	San Francisco in.....	*18
Guayaquil in.....	9½		

We need make no apology to our readers for the length of this extract. It sufficiently recommends itself by the originality of its conceptions, and the logical clearness with which they are presented. It opens in prospect, and not a distant one, the commercial resources and means of wealth and enterprise, which are eminently suited to build up the power of this vast empire, and to hasten the time when it shall become the foremost nation of all the world, taking the place that is rightly due to its physical condition, to the character of its people, and to its free institutions.

And Mr. King suggests that it may have been owing to the sagacious discernment of this result, that European capitalists have refused to lend their aid to the accomplishment of an undertaking which will not only deprive them of the decided superiority they now possess over us in their intercourse with nine-tenths of the world, exclusive of ourselves, but will place us so far ahead in the race for commercial supremacy, that we can never be overtaken.

Mr. Alexander Forbes, in a work on California, published in London as far back as 1839, quoted by Mr. King, dwelt upon the favorable situation of that country for intercourse with other nations, and its capacity for commerce, should it ever be possessed by a numerous and industrious population.

"California has now been added to our territory on the Pacific. Its beautiful and commodious harbors, its delightful climate, the fertility of its soil, and its mineral wealth, are attracting thousands and probably tens of thousands of our fellow citizens to it. The most rapid means of communication should be established to facilitate their emigration, protect them in their new homes, supply their

* We are reminded here that some studious and zealous critics have objected to the length of some of the passages as given in Mr. King's tables. Though we have entire confidence in the sources of information on which Mr. King has relied, yet we are not at all careful to answer in this matter, since the corrections of these ingenious persons, even if fully admitted, are too trifling in the slightest degree to invalidate Mr. King's argument, which we may not uncharitably suppose to be less congenial to such minds than the barren statistics on which it is based.

wants, and to enable them still to participate in the blessings of our free institutions. They will be large consumers of our manufactures of every description, and for some years to come, at least, of our agricultural products also."—(P. 7.)

From what we see at present we may expect that mining operations, and not agricultural pursuits, will form the almost exclusive occupation of the inhabitants for many years to come, during which they will depend upon others for their supply of food, as well as of articles of manufacture. If our ships still continue to take the circuitous route round Cape Horn, it will be impossible for us to compete with Chili, Peru, and other adjacent ports, in providing for the markets of California, flour, and other perishable articles. This is brought forward by Mr. King, as being of itself a strong reason for aiding in the construction of the proposed road. He points out the great superiority we shall gain by the diminished cost of transportation, not only in the markets of California, but in those of the whole Pacific; and he applies here the fundamental maxim in trade, that a diminution in the cost of transportation, is equivalent to a diminution in the cost of production.

But, without dwelling upon this, we pass now to the consideration of another novel and striking idea, as to the effect to be produced by this railroad upon the general commerce of the world, and of the manner in which this result is to be obtained. We shall let Mr. King speak for himself:—

"We have already spoken of the commanding position which Great Britain occupies in the commercial world, and we deem it proper to remark still further on the advantages she has derived from it. At an early day she adopted the warehousing system. This enabled her own merchants and those of all other countries to place merchandise in bond, for consumption or exportation. It has been equally beneficial to her commerce and manufactures.

"While it has exempted the merchants from paying duties on importations beyond actual consumption, it has enabled them to make up, with home manufactures and foreign commodities, assorted cargoes for all parts of the world. Foreigners have thus been induced to place immense amounts of merchandise in bond, that they might have the double advantage of consumption or re-exportation.

"The manufacturer has thus been enabled to allow the raw materials, necessary to his pursuit, to remain in store until required for use, without being burdened with the payment of large sums in duties on importations not immediately wanted. *A vast supply has thus been constantly held, at the expense of the foreign producer.*"

To support this view, tables prepared with evident care and labor are inserted in the body of the report, showing the quantities of a long list of articles of foreign growth and production, in the bonded warehouses of London, Liverpool, Bristol and Hull, on the 5th January, 1832 and 1833; and the quantities and official value of articles of foreign growth and production re-exported from, compared with the official value of the total imports into, Great Britain, from 1831 to 1844.

"The great variety and amount of articles constantly on hand in the British warehouses, as shown in these tables, for domestic consumption—the supply of her commerce and manufactures—is truly surprising. It will be seen that more than *one-fifth* of all the imports are re-exported, and that if the whole amount of duties payable had been exacted, her merchants would have been required to pay more than two hundred and eighteen millions of dollars on *five* articles alone, from which they were relieved by the warehousing system.

"The total value of articles imported into the United States in 1848, was $154,977,876. The value of articles re-exported was $7,986,806. Thus it will be seen that *we* re-export but a little more than *one-twentieth* of our imports, and that the re-exportations from Great Britain are nearly five times larger in proportion to her imports than ours, and are actually *nine* times larger than ours. Now,

if by the construction of the proposed work we give such a direction to the course of trade as to bring us almost in a central position between Europe and Asia, it seems impossible to resist the conclusion that our warehouses must become the great depots and our cities the marts of modern commerce."—(P. 14.)

We have not left ourselves any room to speak of the terms of our recent treaty with New Grenada, or of the bill accompanying Mr. King's report. We can only say of the former, that it amounts to a defensive league on our part, by which we virtually guarantee the sovereignty and independence of New Grenada for a period of twenty years; and of the latter, that it is prepared with great care and forethought, and provides that at least seven-eighths of the stock shall be owned by citizens of the United States.

The services to be rendered by the contractors in return for the pecuniary assistance received from the government, will exceed by many fold the amount it advances.

The rapid settlement of California, and the character and pursuits of its people, will soon render the efficient interposition of the government necessary, and the frequent transportation of agents, and of military stores, and men must inevitably take place.

We have also seen recently in the public prints a letter from Commodore Jones, commanding the squadron in the Pacific, in which he recommends to the Secretary of the Navy that our ships of war should be refitted in California, by which their long absence from a station where they constitute a most important and efficient police will be prevented, and the great delay and expense of the tedious voyages round Cape Horn and back be saved. This is so palpably a measure of economy and policy, that it cannot fail to receive the sanction of the department controlling the navy. And here we have at once, in the transportation of materials, stores, and persons required to establish a naval depot in California, and to relieve from time to time the officers and crews of our different ships of war, a mode by which the government will be fully reimbursed for its proposed expenditures.

But it must not be thought that it at all enters into the views of Mr. King, that this mode of communication with California is to dispense with the future construction of a railroad from the valley of the Mississippi to the borders of the Pacific Ocean.

This road, which is equally demanded by public opinion and public policy, must sooner or later be made. We rejoice to see that the mind of the nation is already so fixed upon it, that the *commencement* of this great undertaking may be regarded as not very distant. And much, we conceive, will depend upon the manner and direction in which it is begun. It should, as a matter of obvious policy, take such a course as to pass through lands the best adapted for immediate settlement, either by their fertility or their mineral wealth; and then it will accomplish more rapidly the universal effect of railroads, to create population along their line.

If it be begun at both extremities of the line simultaneously, and this rule of direction be followed, the public lands through which it passes will be brought into market under very profitable conditions, and their sale from year to year will very soon be sufficient to meet the expenses of the year in construction. And this rapid settlement will also in time give rise to the by-travel, which is found, even on the main routes, in the old States, to be indispensable to the support of railroads, in the expensive and handsome style in which they are maintained, at least at the North.

We have dismissed all anxiety as to the accomplishment of this great un-

dertaking, and now our thoughts are turned chiefly to the examination of the various plans offered to the public, concerning which we may have something more to say hereafter.

There is one effect following the completion of this railroad across the isthmus, (or any other mode of easy communication between the two oceans,) that is too striking to be omitted. Since the earliest application of steam to navigation, the question has often been discussed, as to how far this motive power would be eventually employed for the general purposes of commerce, to the exclusion of sails; and it has hitherto appeared to be requisite that science should bestow upon the arts some new method of generating heat more economical and compact than the present one, before steam could be generally introduced on the ocean. A long time elapsed before the English steamers ventured across the Atlantic, notwithstanding the experience gained by their sea-practice on their own shores, and on the coasts of Europe. Yet it must be remembered that the English, having no great inland water communications like ourselves, were compelled by their position, if they built steamers at all, to build sea steamers, and to this fact, and this only, it is owing, that they have taken precedence of us in the construction and management of sea steamers—a precedence which, we may incidentally observe, we shall soon be prepared to dispute, to which it does not become the maritime genius of our people to submit, and the loss of which is only delayed, not prevented, by a few failures in the beginning, such as might be reasonably looked for in new enterprises, particularly among an inventive people not disposed to copy tamely after others.

With all the improvements in machinery, and economy in the use of fuel, which have so astonishingly marked the progress of steam navigation, its common routes are still limited. It is only for distances not exceeding a certain extent, that steam can be advantageously employed.

The use of steamers between the great marts of commerce on both sides of the North Atlantic, and those in the North and South Pacifics, if thought of, has not yet been projected. But the direct and immediate effect of the construction of the proposed road is to bring these markets within reach of each other by means of steam navigation. We are well aware that, for many reasons, it is neither desirable nor possible that the ordinary channels of trade should be too suddenly closed or altered.

The vital circulations of commerce are not to be rudely or unadvisedly interrupted. But in this instance, the effect is to create new channels without destroying the old ones—to open new avenues to enterprise and wealth, and to supply new means of providing for those unforeseen necessities and wants which have sprung from the recent discoveries in California.

It is by such views and reflections as are here presented, that we have been led to regard the construction of the proposed and long thought of railroad as a pregnant event in the history of commerce. It is hardly necessary to declare that we do not speak of this road as the only, or even the best, mode of transit between the two oceans. With respect to others, as, for example, that across the Isthmus of Tehuantepec, we wait to have the deliberate opinions of engineers concerning the feasibility of the excavations, &c., of hydrographers concerning the capacity, safety, and facilities of approach, of the harbors on each side; and we should also be glad to learn the opinion of geologists concerning the alluvial formation of these shores, and the laws of deposit under which it takes place—for it would be a serious objection to

such a gigantic undertaking that it must begin by a contest with the operation of the fundamental laws of nature.

At the same time that we are prepared to treat this, and all similar projects without prejudice, and to discuss their merits fairly, we see in the one, of the railroad across the isthmus, the only present practicable plan, the only one that can be commenced without delay, the merits and defects of which have been long known and thoroughly examined, and the only one in which capitalists are willing, with sufficient encouragement, to embark immediately.

As there is no subject more important than this, (of constructive communication between the two great oceans,) or more intimately connected with the purposes for which this journal was established, we shall endeavor, from time to time, to keep our readers acquainted with the progress of opinion, and of events in relation to it.

Art. IV.—COMMERCIAL CITIES AND TOWNS OF THE UNITED STATES.

NUMBER XV.

DETROIT, MICHIGAN.*

ITS LOCATION ON THE DETROIT RIVER, AND DESCRIPTION OF THE RIVER—THE DEPTH, WIDTH, CURRENT, AND NAVIGATION OF THE RIVER, AND A COMPARISON OF ITS RISE AND FALL WITH THE FLOODS IN SOME OTHER LARGE RIVERS—SETTLEMENT OF DETROIT, AND NUMBER OF ITS INHABITANTS AT DIFFERENT PERIODS—ITS RAILROADS, AND FACILITIES FOR COMMERCE—ITS STORES, DWELLING-HOUSES, HYDRAULIC WORKS, CHURCHES AND PUBLIC BUILDINGS, AND THE GREAT NATURAL CURIOSITY PRESENTED BY THE UNITED STATES BUILDING—MANUFACTURES OF LUMBER—SHIP-BUILDING—FOUNDRIES—MACHINE-SHOPS, ETC., ETC., AND ITS ADVANTAGES AND FACILITIES FOR MANUFACTURING BY STEAM.

The city of Detroit is pleasantly situated on the north-westerly side of the Detroit River, or Strait, extending along the river more than a mile and a half, the centre of it being about seven miles from Lake St. Clair, and eighteen miles from Lake Erie, in north latitude 42° 20′, and west longitude from Washington city 5° 56′. The river runs from Lake St. Clair, to a point about two miles below the city, in a direction about 30° south of west, and from thence it runs nearly south to Lake Erie. The original bed of the river opposite Detroit, and for a mile above, and about three miles below, varied from about 48 to 52 chains in width, averaging about five-eighths of a mile; the width from the docks of Detroit to the opposite docks of Sandwich being about half a mile. Lieutenant M'Comb, of the United States Army, carefully sounded and surveyed the river in the summer of 1841, and measured its depth and current in numerous places, and at different times. The depth between the docks in June, 1841, varied from about twelve to

* The following article was prepared for the Merchants' Magazine by Ezra C. Seaman, Esq., a member of the Detroit Bar, and the author of an elaborate work entitled "Essays on the Progress of Nations in Productive Industry, Civilization, Population, and Wealth; illustrated by Statistics of Mining, Agriculture, Manufactures, Commerce, Banking, Revenues, Internal Improvements, Emigration, Mortality, and Population." This work is embraced in a volume of some six hundred octavo pages, and contains a vast amount of important information, forming altogether one of the most valuable contributions that has yet been made to the literature and statistics of political economy. We should not, perhaps, agree in all the inferences and conclusions of the author, but his work is highly suggestive, and exceedingly valuable as a book of reference.—*Ed. Merchants' Magazine.*

forty-eight feet, averaging about thirty-two feet. The descent from Lake St. Clair to Lake Erie is about six feet, or three inches per mile. The velocity of the current in the deepest part of the channel, opposite the city, he found to be about two and a quarter miles per hour; three miles below the city, where the river is a little contracted, he found it to be two and a half miles per hour; and some miles lower down, where it is considerably wider, he found it to be only one and five-eighths miles per hour.

There is not a ripple in the whole length of the river, and its current is nearly uniform. It rises and falls with the surface of the water of the great chain of lakes, of which it is a connecting link; and being less affected by the winds, it is still more uniform in its height and surface than the lakes are. The average annual rise and fall is only about two feet; the water gradually rising from the latter part of March or first of April, until the first of July, and falling from some time in August, until February; being generally two feet lower in February than it is in July. A succession of two or three wet seasons raises the surface of the water in all the lakes, and the straits connecting them; and on the contrary, a succession of dry and warm seasons causes a fall of the water; making a difference in a series of years, at the same time of the year, of about four feet, and a total difference of about six feet, between the month of February, 1819, when it was the lowest, and the month of July, 1838, when, on account of its destruction of timber in many situations, it was supposed to have been higher than it had been before in many centuries.

The Detroit river is a deep and smoothly flowing stream; the most uniform and perfect, for purposes of navigation, and one of the most beautiful which the eye of man ever beheld. A strong south-west wind on Lake Erie, lasting from two to three days, will sometimes depress the water in the west end of the lake from three to four feet, and at the same time heap it up at the foot of the lake, and flood the whole lower part of the city of Buffalo, and yet not affect the water in the river at the city of Detroit over eighteen inches. Such gales occur every few years, often driving the shipping up into the streets of the city of Buffalo, and destroying large amounts of property, while vessels are lying at the docks in Detroit undisturbed, and in perfect security.

The stream is so deep, and its current so strong and uniform, that it keeps itself clear; and its navigation is not affected, as the Mississippi is, with either rocks, sandbars, trees, or sawyers. Its deep and strong current also carries along the ice with a slow and uniform motion, so that it is never dammed up by the ice; while the St. Lawrence, at Montreal, is shallow and full of rocks, against which the ice lodges, aud often forms a dam across the river, and raises the water from twenty to twenty-five feet, overflowing its low banks for miles, and sweeping off and destroying large amounts of property.

The reader can judge of the superiority of its navigation over almost all other rivers, and the greater security of property on its banks, when he reflects on the following facts. The average annual variation of the height of the Detroit river does not exceed two feet, and the greatest variation from its lowest to its highest stage, during the last half century, is only about six feet. On the contrary, the annual variation from low to high water mark of the Ohio river, from Cincinnati to its mouth, is about fifty feet, and its extreme range on record, sixty-three feet. The water was the highest at the time of the great flood, in 1832; but rose about sixty feet at Cincinnati, in December, 1847, and fifty feet in the Cumberland river, at Nashville. The

annual floods of the Mississippi river, above low water mark, from the mouth of the Missouri to the Ohio, are said to be about twenty-five feet; and for hundreds of miles below the mouth of the Ohio, they are about fifty feet. Above Natchez the floods decline, and at Baton Rouge they seldom exceed thirty feet, and at New Orleans twelve feet; and yet, from the mouth of the Ohio to the St. Francis river, below Memphis, there are various shoal places in the Mississippi, where, at low water, pilots are often perplexed to find a sufficient depth of water; and the Ohio, in the fall of 1838, was so low for several months, as to render its navigation above Louisville of but little value.

The annual floods of the Nile are from June to the middle of August, when they usually reach the maximum height of from twenty-four to twenty-eight feet above low water mark; and nearly the whole Delta, and the long valley of Egypt, is covered with water. The waters of the Ganges commence rising in April, and continue until the middle of August, when they usually attain a maximum height of about thirty-one or thirty-two feet. The floods of all these rivers, and in fact of nearly all the great rivers in the world, sometimes do great damage, and at others they are so low as to render their navigation more or less imperfect. The navigation of the beautiful Hudson is sometimes imperfect, even below as well as above Albany; while the floods at that city sometimes destroy large amounts of property.

It is not so, however, with the Detroit river. It has no floods—it never overflows its banks—property on its banks is always secure, and its navigation is always perfect, except when frozen over, or full of floating ice. At all other times the navigation on the Canadian side of the river is always perfect. Near the mouth, a reef of limestone rocks extends from the Michigan shore, across the western branch of the river, to Grosse Isle, and from thence, across the widest or middle channel, to Bois Blanc, a Canadian island, opposite Amherstburgh and Fort Malden. The only channel at present deep enough for the largest, or even the middling class of vessels, is between Bois Blanc and the Canadian shore. All American vessels are thus compelled to pass directly under the guns of the British Fort Malden, which, in case of war with Great Britain, would be a serious inconvenience to our commerce, and might endanger the safety of the country. At the beginning of the war of 1812, an American vessel with supplies for the garrison at Detroit, was captured before Fort Malden, which finally led, in its consequences, to the fall and surrender of Detroit, and the temporary conquest, by the British, of the whole upper lake country. Inasmuch as a comparatively few thousand dollars would make a good ship channel through the rocks on the American side of the river, the government ought not to hesitate a moment in doing it, for the position of our commerce and the safety of the country.

The two principal streets of Detroit are Jefferson Avenue and Woodward Avenue, each one hundred and twenty feet wide; the former being upon a ridge, elevated about twenty feet above high water mark in the river, and running nearly parallel with, and from four hundred to one thousand feet distant from the river; and the latter crossing the former at right angles, at the centre of the business part of the city. There was formerly a little run or brook, of mere surface water, a few hundred feet back of Jefferson Avenue, which fell into the river near the lower end of the city. In this run the ground is from five to ten feet below the average level of Jefferson Avenue, and beyond it the ground gradually rises with great regularity, and is from twenty-five to thirty-five feet above the river, in the most of the rear part of the city. There is a large sewer laid down in the bed of this run or

brook, known as the grand sewer, which serves to drain the water from a large proportion of the city. With the exception of the little depression at the grand sewer, the ground rises very gradually from the wharves to the rear of the city, and the ascent up to Jefferson Avenue is sufficient to give a fine view from the river of the whole of the lower part of the town; and perhaps two-thirds of the city can be seen at one view, from the centre of the river.

Though the Detroit river was visited by the French as early as 1610, yet the first permanent settlement, where the city of Detroit now stands, was made about the year 1701. The population of the city of Detroit, and of the Territory, now State of Michigan, at different periods, was as follows:—

Population in	City of Detroit.	State of Michigan.	Population in	City of Detroit.	State of Michigan.
1810.....	770	4,762	1834.....	4,968	87,263
1820.....	1,442	8,896	1840.....	9,192	212,267
1830.....	2,222	31,639	1845.....	13,065	304,278

The population of Detroit did not increase much, if any, from the year 1838 to the spring of the year 1843, but since that time, it has increased very rapidly, and is supposed now to exceed 18,000. Detroit is the concentrating point of the commerce and banking of the whole State; in fact, there are no banks in the State except in Detroit. More than two-thirds of the exports from the State are from Detroit, and over three-fourths of the imports into the State are into the single port of Detroit. By means of the increase of its manufactures, and the expansion of its commerce, we may expect the population of Detroit to increase relatively, more rapidly in future than that of the State; and that it will amount, at the census of 1850, to from 20,000 to 21,000.

All the great leading roads made by the United States in Michigan while it was a territory, commence at Detroit, and diverge from thence in diverse directions across the State. The Pontiac Railroad, running from Detroit twenty-five miles north-westerly to the village of Pontiac, together with the navigation on the river and Lake St. Clair, brings the principal part of the products of all the northern part of the State directly to Detroit for a market. The Michigan Central Railroad, running westerly from Detroit, brings to that city nearly all the business of the central portions of the State; and when it shall have been completed to Lake Michigan, a few months hence, it will secure to the city nearly all the trade and forwarding business of the western part of the peninsula. It has been in use some years to Kalamazoo, a distance of about 145 miles, and was opened last fall to Niles, on the St. Joseph river, 191 miles from Detroit. It will be opened early next summer to Lake Michigan, which is about 29 miles from Niles, making its whole length, when finished, about 220 miles. The distance from its termination at New Buffalo across Lake Michigan to Chicago, is about sixty miles, making the whole distance from Detroit to Chicago but 280 miles; the distance around the lakes being about 750 miles. In a few years we may expect a railroad to be made from New Buffalo, around the head of the lake, to Chicago, and from thence to the Mississippi river, at Galena, thus completing the iron chain of communication between Detroit and the Mississippi river.

All the east end of this road for more than fifty miles, and also the westerly part recently completed, is laid with a heavy T rail, weighing over 60 pounds to the yard; and the company is sparing no pains, and no reasonable expense, to make this a substantial and permanent work. The company

is authorized to build and own not more than six steamboats, to run in connection with the road, on Lakes Erie and Michigan; and the enterprising engineer of the road (Mr. Brooks) is now building a steamer for the company, and making arrangements with the owners of other steamers, to form two daily lines each way between Buffalo and Chicago, so as to leave each place in the morning and evening of each day, and carry passengers through, a distance of about 600 miles, in less than 48 hours; though the passage around the lakes is over 1,100 miles, and usually occupies from four to five days.

The Company have purchased about seventeen acres of land in the lower part of the city, (nearly all of which once formed a part of the bed of the river,) with a water front of nineteen hundred feet. All this has been filled in at great expense, and many large buildings erected upon it, on piles. The great freight depot, the largest perhaps in the world, is 100 feet wide, and extends along the river 800 feet, with a wharf in front of it 40 feet wide; the water at the dock varying from 12 to 22 feet in depth. The company have two other warehouses near by, one 50 by 90 feet, and the other 40 by 90 feet. They have also built a round engine house, 130 feet diameter; a machine shop, three stories high, 60 by 95 feet, with two wings, two stories high, one of them 40 by 60 feet, and the other 40 by 55 feet; a car shop, three stories high, 55 by 169 feet; and a large passenger depot, 75 by 303 feet, with fire proof offices in front, 22 by 75 feet, making the whole building 75 feet wide and 325 feet long. Vessels lying at the wharf can load and unload directly from the warehouses, without any cartage; and every facility exists for doing an immense business, in the cheapest manner, and with the greatest despatch possible.

The whole cost of the road is estimated by the engineer at...	$4,820,000
Engines, cars, and other stock on the road.....	450,000
One steamboat and furniture.....	130,000
Total.....	$5,400,000

The reader will see at once the great facilities and advantages of the city of Detroit for purposes of commerce and navigation, and the immense importance to it, as well as to the State, of the Michigan Central Railroad. In addition to the depot and warehouses belonging to the railroad, there are on the wharfs of the city nineteen warehouses, the most of them large, and from two to four stories high.

In addition to a large retail trade, there is a pretty heavy wholesale business done in Detroit; and the amount of it is annually increasing, with great rapidity. Nearly all the merchants in the interior of the State depend on occasionally replenishing their stocks in Detroit, and a large proportion of them buy all their goods here. The exports, imports, navigation and tonnage of the city of Detroit, as well as of the other ports of the State of Michigan, have been stated so fully and in detail in a recent number of this review, (for July, 1848,) that it is unnecessary to repeat the details of them here. The reader is referred to that article for more complete information on those subjects.

The most of the stores are substantial brick buildings, there being several very fine blocks of three and four story brick stores; which, together with the warehouses, many good dwelling-houses, churches, and other public buildings, give the town rather an imposing appearance from the river, or from the opposite shore at Windsor. Though there are many good dwelling-houses in the city, which cost from $4,000 to $8,000 over and above the lots

on which they are erected, yet there is none which cost, or if built at present prices of labor and materials, would have cost above the latter sum. Though Gen. Cass is a man of great wealth for this country, and lives in a large house, yet it is a plain wooden building, and he has set an example of economy and of commendable simplicity to the whole West, as well as to his neighbors, which is well adapted to the condition of a new country.

WATER. The city is supplied with water from the Detroit river, by means of a hydraulic establishment in the upper part of the city. The reservoir which contains the water is of cast iron, 60 feet diameter and 20 feet deep, secured by strong iron bolts and rivets; supported by a circular brick building, 62 feet in diameter, at an elevation of 47 feet from its foundation. It is enclosed with a frame building, standing on the brick foundation, 65 feet diameter and 24 feet high, with a conical roof. The reservoir is supplied by means of a steam-engine, which works a forcing pump that is fixed several feet below the surface of the river, and is found fully adequate to furnish an abundant supply of good and wholesome water to the whole city. Connected with these works there are said to be about four miles of iron pipe, over ten miles of tamarack logs, and fifty hydrants or fire plugs, all of which cost the city about $120,000.

CHURCHES. There are in Detroit sixteen churches: four Roman Catholic, two Episcopalian, one Presbyterian, one Scotch Presbyterian, one Congregational, three Methodist, two Baptist, one German Lutheran, and one Sailor's Bethel.

The new Catholic Cathedral, or St. Peter's Church, is a very large and substantial edifice, and being high, massive, and of good proportions, it has an imposing appearance. It is built of brick, and is 160 feet long and 81 feet wide. The corner-stone was laid June 29th, 1845, and it was consecrated June 29th, 1848. The steeple is not yet completed. The Cathedral of St. Anne, known as the French church, is 116 feet long by 60 feet wide. The first Presbyterian church is a good, substantial, and well appearing brick edifice, with a portico and colonade in front. Its length, including the portico, is 100 feet, and its breadth 60 feet.

Though the Catholics have numerically but one-fourth part of the churches of the city, yet the Catholic population really constitute about two-fifths of all the inhabitants. In addition to these churches there are three or four religious societies, which meet in other public buildings.

PUBLIC BUILDINGS. The public buildings consist of the old State House, the United States building, the State building for the Supreme Court and public offices, the County Court House, the County Jail, the City Hall and Market, and the Firemen's Hall.

The United States building is a handsome edifice, standing on the corner of Jefferson Avenue and Griswold-street, near the centre of the city, having a front of 40 feet on the Avenue, and being 57 feet deep. The front and also the side on Griswold-street, is built of polished shell limestone, brought from the islands in Lake Erie. It was built by the Bank of Michigan for a banking house, in 1837, at an expense of about $40,000, and is now occupied for a United States Court House, public offices, and post office. The architecture is in good taste, and though it is not large and massive enough to give it a very magnificent or imposing appearance, yet it is one of the finest buildings in America, and presents the greatest natural curiosity of any building on the continent, and perhaps the greatest of any in the world. The polished surface of the stone exhibits a great variety of petrified shells of divers

colors, shapes and sizes; but what is the most curious, it exhibits a perfect petrification of the cutral section of a human face, chin and skull, separated through the centre, from front to rear, in cutting the stone, showing the lines of the chin, mouth and nose, the socket of one eye, the whole outline of the transverse section of the cranium, and even some of the folds and the shape of the medullary substance of the brain. This is not only a great and striking curiosity in itself, but it excites in the mind curious speculations. How, and in what age of the earth's history, could such a petrifaction have been formed? The block in which it is exhibited is a large one, and it must have been cut out of the solid limestone rock; and yet it must have been formed since the earth was inhabited by human beings, of substantially the same organization, to all appearance, as the present race of man.

All the other public buildings enumerated are substantially built of brick, but present nothing in particular to attract the eye of the stranger.

Manufactures. The largest manufactures in and about Detroit consist of sawing lumber and ship-building. There are in Detroit five large steam saw-mills, one of which was built during the last season. These mills sawed, during the year 1848, over 7,500,000 feet of lumber, and about 3,000,000 laths. They are situated directly on the river, and are mostly supplied with logs from the county of St. Clair, floated down the creeks and small rivers into the St. Clair river, and from thence to the city of Detroit. The laths are sawed from the best part of the slabs, and the sawdust, together with the refuse part of the slabs, supply the necessary fuel to work the steam-engines. These mills employed nearly ninety men on an average, and the lumber sawed during the year was worth about $80,000. In addition to this, the lumber-yards in Detroit sold, during the year, over 5,000,000 feet of lumber, besides lath, which was sawed by mills on St. Clair river, in the county of St. Clair, at an average price of about $10 per 1,000, the most of it being white pine; the aggregate sales of lumber at Detroit during the year being thus swelled to an amount exceeding $130,000.

Ship and boat-building is also a very large and important branch of business.

There are also three pretty large foundries, with machine shops connected with them, employing on an average about 140 men, which cast steam-engines, mill-irons, machinery of various kinds, stoves, ploughs, &c., and consumed during the past year about 1,200 tons of pig and bar iron, and whose products were worth about $115,000.

There are also two boiler factories, for the manufacture of boilers for steam-engines, and several machine-shops for working in iron, and some in brass. There is also one sash factory, two pail factories, one steam flouring mill, two tanneries, and five breweries. Cabinet making and most other mechanical employments are pursued in Detroit to a considerable extent, and something is done also at shoemaking; but much the largest proportion of the shoes and boots worn in Michigan are made in Massachusetts, and much of the cabinet-ware and coarse clothing is made in the State and city of New York.

The country back of the city of Detroit ascends from the river, with almost perfect regularity, at the rate of from four to five feet per mile, for a distance of from twenty to twenty-five miles. Though it inclines sufficiently to carry off the water rapidly when cleared, and the water courses are opened, yet it appears to the eye in most places like a perfect level, and in a wild state the water does not run off very freely. It is, in fact, a wet, heavily timbered country, and the wood and timber is cut off very slowly; so that, by means

of the navigable waters up and down the stream, the two railroads, now in operation, and two or three plank roads soon to be built, we may expect a large supply of fuel for the city, and also for purposes of navigation and manufacturing by steam at pretty cheap rates, for a long period to come. This State is now producing a considerable quantity of wool for exportation, and the crop of wool is increasing annually. The connection of the lakes by means of canals with the Ohio and Mississippi rivers, will enable manufacturers in this city to procure cotton from Tennessee, Arkansas, Mississippi and Louisiana, cheaper than it can be sent to the factories of Massachusetts, so that there seems to be no good reason why both cotton and wool may not be manufactured in Detroit by steam power, as advantageously as they are in Massachusetts and Pennsylvania.

The upper peninsula of Michigan, lying on Lake Superior, is supposed to contain inexhaustible mines of iron as well as of copper, lying on and near the lake shore, and an abundance of wood to smelt the ore. If the incoming administration of General Taylor shall protect the industry of the country, as we have reason to expect, we may reasonably anticipate, that within the next twenty years the mines of iron on Lake Superior will be extensively worked, and large quantities of ore smelted and made into pig iron; that it will be brought to Detroit to be rolled into bar and sheet iron, and cut into nails; and that there will be located in Detroit numerous rolling mills, nail factories, &c., for the manufacture of iron, making it one of the great iron cities of the United States, and perhaps inferior only to the city of Pittsburgh. Its facilities for navigation and commerce, as well as for manufacturing by steam, may also make it a place of importance for the manufacture of both cotton and wool, and thus make it the great workshop as well as central mart for the lake country. E. C. S.

Art. V.—SICILY AND ITS COMMERCE.

No nation in the world has been more glorious, more prosperous, more civilized, than the Sicilian; but at the same time no nation has lived till the late revolution in deeper misery. Everybody is acquainted with the events of 1837, when Sicily made an abortive attempt to shake off the power of her tyrants. Almost 150 heads were put at a price, and the courts martial condemned to death fifty-eight of her best citizens for political offences. The infamous Del Caretto, worthy minister of the King of Naples, presided at the butchery of his own countrymen. When eight citizens of Catania were condemned to be shot, he caused them to be executed while a military band struck up joyful tones, and the same evening he gave a grand ball at the communal palace. Among the seventeen that were murdered at Misilmori, was a lad fourteen years of age; and among those condemned to the mines, a young woman, whose only guilt was to have tolled the alarm bell in a village. Posterity will scarcely believe these atrocities, and yet they have been perpetrated in Europe, and in the year 1837! This, however, was not the first time that Sicily had been flooded in blood. In 1825, while the Austrians were stationed in the city of Palermo, a conspiracy was formed to exterminate all foreigners; the conspiracy was discovered, and thirteen of the conspirators were put to death, while a large number were exiled or thrown

into a dungeon. In 1831, another conspiracy was discovered, and eleven persons more were shot. Under such auspices commenced the infamous reign of the infamous Ferdinand II.! Would that I could mention the names of all the martyrs that Sicily gave to Italian liberty, from 1825 to 1837; but history will record their glorious names in indelible characters, and their precious blood has already been productive of liberty to their country.

Sicily could not have forgotton her ancient glory, her secular liberties, and the free institutions which she possessed long before the rest of Europe. I speak of the constitution given to her by the Normans, those same Normans who were the oppressors of England;—a very liberal constitution for those times, rendered still more so by Frederick II. of Treve, and by the Sicilian aristocracy in 1812, which in one night destroyed all feudal privileges. This constitution was destroyed in 1816, by Ferdinand I. When adversity hung over the house of Bourbon, Ferdinand's principal reliance was on the Sicilians, who lavished their blood and money to fight his enemies, and the hypocritical king did everything to conciliate their affection; but as soon as fortune began to smile again on his house, and he found himself strong enough to dispense with their assistance, he took from them not only the constitution of 1812, but that also of the Normans, which had been enlarged by the Treves, and respected by the French and Arragonians, and all the foreigners who had severally ruled over the island. But to Sicily, as well as to the rest of Italy, something better was reserved than the Norman constitution. The hour of Sicilian independence has struck; that rich and glorious island has returned to her ancient glory. The beginning of 1848 was marked by the last Sicilian revolution. It was understood that the king's birth-day would be chosen for the rising of the whole island, and on the morning of the 12th of February, while the guns of the fortress of Palermo announced the festival day of the tyrant, the populace of Palermo attacked and disarmed the soldiers. Monks and priests formed a formidable legion, crosses and swords in hand, to oppose the satellites of the Neapolitan king. The insurgents respected private property, and even the Royal Bank, and treated with kindness and mercy the prisoners and wounded; while the bloody generals of Ferdinand ordered their troops to be merciless, to butcher the people without regard to age or sex, and to make a slaughter-house even of the sanctuary of God. The Sicilians determined not to yield till the last drop of blood was shed. They fought bravely for many days, suffering all the horrors of a bombardment. The people of the country, six thousand strong, decided the fate of the revolution, and the cruel Neapolitan generals were forced to fly, leaving behind them one of the finest cities of Europe reduced almost to a heap of ashes. Next came the insurrection of Messina, and the strong city of Syracuse, the native place of Archimedes. Both these cities fell into the hands of the insurgents. Then the king tried to bring the island back to his allegiance by granting a constitution and making some cabinet changes. But *it was too late!* The Sicilians had determined to assume their independence, and not to be trifled with any more by a traitor and a tyrant. They immediately formed the national guard, and elected a provisional government to take the necessary measures to secure the liberty of the country and oppose the oppressors. Ruggieo Lettimo, one of the most patriotic and wise men of Sicily, was unanimously chosen as the head of the government. Envoys were sent to foreign countries in order to have their independence acknowledged; and though at first it was determined to form a separate republic, it was thought

wiser to have a constitutional king. In less than four months, these heroic islanders had so far prospered in their internal affairs, that they were able to send help to their brethren of Naples, and have already formed a strong fleet and army to assist the insurrection of the Calabrias and Naples. France and England were the first to acknowledge the Sicilian independence. Sicily, though a separate State, continues to form part of the Italian league, and has contributed men and arms for the war of the Lombard independence.

Sicily is the largest island in the Mediterranean, situated between Italy and Africa, and had formed till the last revolution part of the kingdom of the Two Sicilies. It contains two millions of inhabitants. After the fall of the Roman empire, this beautiful island was successively occupied by the Saracens, Normans, and French. The so-called Sicilian vespers marked the tragic end of the domination of the last, and the island passed under the dependence of the crown of Arragon, and finally under that of the king of Naples. The 12th of February, 1848, she asserted her independence, and is now governed by a national assembly and a provisional executive.

Sicily, after 1815, was divided in seven provinces; namely, Caltamisetta, Catania, Girgente, Messina, Palermo, Syracuse, and Trappani. The celebrated volcano, Ætna, rises 1672 feet above the level of the sea. The principal rivers of the island are the *Grande*, the *Salto*, and the *Giaretta*. The beauty of its climate and the fertility of its soil has rendered Sicily celebrated in every age. The principal articles of exportation are oranges, lemons, sumach, olive oil, wine, manna, raw silks, tissues of Messina, almonds, flax oil and seed, soda ashes, rags, liquorice, sulphur, essences of bergamotte, lemon, and Portugal, grains, tartar, dried raisins, gum, nuts, scagliola, pomice stone, hides, nut gall, mustard seed, cantharides, glue, tallow, starch, citron, brandies, worsted Brancavilla, orchal grass, curobs, anchovies, fish oil, dried and salt fish, &c. The sumach and soda harvest is generally ready in August; the first exportations of oranges and lemons take place generally about the beginning of November; sulphur, oil, wine, salt, and rags, can be exported all the year round. Purchases of produce are always effected forc ash, namely, one-half at the conclusion of the bargain, the other half on delivery of the goods. The principal importations consist in West India produce of every description, indigo, dyeing woods, spices, metals, hides, cod fish, paper, lumber, tissues of all kinds, English, French, German, Belgian, and Swiss.

Grain. The exports of this article, once very extensive, has been lately very much reduced, and are not allowed without the permission of a special administration, (*real patrimonio.*) The gross amount is estimated at 90,900 bags, almost all destined to Naples.

Wines. Sicily abounds with vineyards, particularly the southern part. Its yearly exportation to foreign countries amounts on an average to 50,000 pipes; that of brandies, spirits, and vinegar, to 15,000. Marsalla, one of the wealthiest cities of Sicily, is indebted for her prosperity to the immense cultivation of vines, the yearly produce of which amounts to 20,000 pipes.

Olive Oil. The yearly produce of oil is estimated at 20,000,000 pounds, 1,200,000 of which alone are exported.

Lemons and Oranges, etc. The lemons, oranges, &c., of Sicily are preferred to those of any other southern province of Europe. From Messina and Palermo are exported yearly 300,000 boxes of lemons, oranges, citrons, bergamottes, *chinottes*, &c., to France, England, United States, Genoa, Trieste, and the northern part of Europe. Almost 12,000 barrels of lemon juice are exported every year from Messina and Syracuse, principally to Trieste.

MANNA. Sicily supplies the largest part of this precious article to Europe and America. Palermo exports not less than 4,000 boxes every year.

SUMACH. It is calculated that the cultivation of this plant has increased threefold within the last twenty years, and its exportation exceeds already 129,000 ponnds.

COTTON. The soil and climate of Sicily are very favorable to the growth of cotton, though as yet the yearly production does not exceed 6 or 8000 bales, which is mostly consumed in the island and Naples, with the exception of a small quantity that is shipped to England.

DRY FRUITS. The exports of almonds, small nuts, pistach nuts, nuts, plums, and grapes, are estimated at 60,000 pounds, of which that of grapes alone amounts to 18,000 pounds.

FLAX SEED. Sicily exports every year about 38,000 pounds of this article to Genoa, Marseilles, Trieste, and England.

LIQUORICE. About 65,000 pounds of this root are shipped every year, besides 18,000 of its juice.

SILK. The exportation of silk is estimated on an average at 300 bales, or 90,000 pounds, of 32 ottogramma, principally from Messina, to the United States, England, Genoa, Trieste, and Marseilles.

CANTHARIDES. About 50,000 pounds of the precious insect are exported every year to foreign countries.

SULPHUR. This article is the principal mineral wealth of the island. Its exports amounted in 1846 to 750,000 kilograms.

SALT. The salt pits of Trappani and Agosta supply the large quantity consumed in the State, and export 350,000 kilograms to Malta, Civita Vecchia, Venice, Constantinople, &c.

FISHERIES. This branch of industry is very lucrative in Sicily. That of the tunny, anchovies, and sardines is carried on with great success. Besides the enormous quantity consumed in the country, 12,000 barrels are exported every year to Malta and other parts of Italy.

MANUFACTURES. It cannot be said that the Sicilians are very proficient in the manufacturing arts. They are in a great measure dependent upon the other provinces of terra firma, and other industrious nations of Europe. Sicily is not possessed with that spirit of association, which, by concentrating small capitals, constitute the great means of the manufacturing industry. She wants that mutual confidence which approaches the wealth of the proprietor and the capitalist to the talents of industrious and business men; she has no machineries, no instruments, good dyers, and capable manufacturers. There are, however, a few silk manufactories in Catania. There have been lately established at Palermo, Catania and Messina, some of cotton tissues, one of cloth, and a large cotton spinning wheel at Palermo; besides some factories of soap, nitre, glass, and cream of tartar, which yield as yet no considerable profits. In 1844 were imported into Sicily goods to the amount of 1,754,213 ounces, and exported 3,374,645. The amount of duties collected by the custom-house was 533,116 ounces. Contraband trade is carried on to a great extent in Sicily. It is calculated that one-third of the foreign merchandise introduced into the island does not pass through the custom-house. During the year 1846, there entered the different ports of Sicily the following number of vessels:—2,729 of 182,162 tons, at Palermo; 3,078 of 259,349 tons, at Messina; 631 of 78,949 tons, at Trappani; 54 of 7,427 tons, at Agosta; 689 of 21,390 tons, at Catania; 655 of 29,358 tons, at Melazzo; 282 of 23,164 tons, at

Pozzalo; and 641 of 23,348 tons, at Marsalla. Among them the foreign vessels were principally French, English, Sardinian, Austrian, and American.

IMPORTATIONS.		EXPORTATIONS.	
Iron and steel.....ounces	78,066	Lemons, oranges, &c...ounces	216,819
" wrought.....	27,642	Brandy and liquors.....	112,788
Hardware.....	39,633	Soda.....	71,346
Sugar.....	81,292	Cheese.....	11,574
Coffee.....	20,061	Liquorice.....	33,374
Drugs.....	31,325	Grain and legumes.....	52,352
Lumber.....	99,024	Manna.....	137,052
Raw hides.....	148,096	Olive oil.....	177,493
Dry and salt fish.....	34,908	Hides, tanned, &c.....	9,710
Cotton tissues.....	557,528	Salt.....	59,901
Linen "	43,508	Sumach.....	183,819
Woollen "	301,703	Lemon juice.....	31,629
Mixed "	32,845	Rags.....	31,128
Silk "	36,021	Wines, vinegar, &c.....	883,801
		Sulphur.....	888,126

Palermo, the capital of Sicily, is a beautiful city, and contains a population of 170,000 inhabitants. Palermo is situated on the south-west coast of the island, on a lovely plain. The port is formed by a long and convenient mole, the construction of which has cost 25,000,000 francs, ($5,000,000.) Besides this spacious and safe port there is a *Darsina*, or inward port, reserved for the use of the royal arsenal. The two grandest streets of Palermo are the *Via Cassara* and *Via Nuova*, cutting the city through at right angles, forming a cross. All the other streets run into either of these two. Palermo has many magnificent palaces and very rich churches, adorned with marble of the country. All the houses have iron balconies. The finest public walk of Palermo is that on the sea-shore, called *La Banchetta*, which extends as far as the Botanic garden, (*La Flora.*) There are not wanting in Palermo literary institutions, though the lower classes are ignorant and superstitious. The Palermitan nobility make great display. Nothing is more imposing than an afternoon walk on the sea-shore; the number and richness of the equipages, the immense crowd of elegant horseman and foot walkers, render the scene one of unusual splendor. The commerce of Palermo is very considerable, and in this city are transacted the most part of the contracts for the produce of the island.

In the absence of an Exchange, business is generally transacted under the Arcades of Via del Cassaro, where the merchants and brokers meet. Here, during the day, the crowd is so thick that it is almost impossible to cross the street. In 1843 the Royal Bank of the Two Sicilies was established, with the same privileges as the Bank of Naples. From Palermo are exported the greatest part of the produce of the island; and into Palermo are imported West India articles, manufactures, salt fish, and meats, iron, &c.

Art. VI.—DISTINCTION BETWEEN JURISPRUDENCE IN EQUITY AND IN LAW.

As equity, as distinguished from legal jurisprudence, is not generally understood, except by the profession, a page upon the subject will, I hope, be acceptable to your readers. And not only is it not understood by "the unprofessional," but it involves a mass of learning which is with difficulty digested by the laborious student of the law. Equity, meaning equality, is the

acme of all law; but equity jurisprudence is distinct from legal enactments, or their interpretations. Its design is to supply the defect of law, whether it affords rules for the Chancellor of the Exchequer, a Roman prætor, or our modern Courts of Equity, or the equity side of the courts of law, as they are now formed in New York. But a confused understanding of this branch of jurisprudence has arisen, from the circumstance that courts of law have exercised certain plenary powers; and besides, the courts which were the proper channels for the complement of justice have not always afforded a remedy.

But to illustrate its object, I shall first give some examples of equity as applied in all law, and afterwards illustrate it as applied in jurisprudence. For instance, the legislator, in his enactments, omits to enumerate some topics which, if it had been convenient, or if it had not escaped his attention, he would have mentioned. Equity supplies the defect by including them under the same rule. Again, the legislator, by too general a clause, includes cases which he never had in his mind, and which he would have excepted, had they occurred to him. Equity makes the necessary exceptions. It limits too general clauses by making the necessary exceptions, and expands those too narrowly expressed, by including analagous cases under the same principles. And this equity, as distinguished from law, arises from the inability of human foresight to establish any rule, which, however salutary in general, is not, in some particular cases, but evidently unjust and oppressive, and operates beyond, or in opposition to, its intent.

This will serve for a description of general equity, though it will give no just idea of it as administered in former times, or at the present, in England or America. The language of Sir James Macintosh is thus:—Equity, in the acceptation in which the word is used in English jurisprudence, is no longer to be confounded with that moral equity which generally corrects the unjust operation of law, and with which it seems to have been synonymous in the days of Selden and Bacon. It is a part of laws, formed from usages and determinations, which sometimes differ from what is called Common Law in its subjects, but chiefly varies from it in its modes of proof, of trial, and of relief. It is a jurisdiction so irregularly formed, and often so little dependent upon general principles, that it can hardly be defined or made intelligible otherwise than by a minute enumeration of the matters cognizable by it. Justice Story remarks that there is much general truth in this statement; but objects that it is irregularly formed, or not dependent on general principles. But as there is a wide difference between the philosophy of law, as actually administered in any country, and that abstract doctrine which may, in matters of government, constitute in many modes the law of philosophy, the same principles will apply in matters of equity as regards its abstract principles, and its practice as carried out in Courts of Equity. If, then, the universal principles of equity is applied equally in courts of law as in Courts of Equity, and as equity jurisprudence differs more in the matters of which it takes cognizance, and also in the manner, than in any enlarging or contracting the literal interpretations of clauses, it would be best illustrated by enumerations; but as this would be too tedious, we must content ourselves with a general description.

Perhaps the most general, if not the most precise, description of a Court of Equity, in the English and American sense, is, in the words of Justice Story, that it has jurisdiction in cases of rights, recognized and protected by the municipal jurisprudence, where a plain, adequate, and complete remedy cannot be had in the courts of common law. The remedy must be plain;

for, if it be doubtful and obscure at law, equity will assert a jurisdiction. It must be adequate; for, if at law, it falls short of what the party is entitled to, that founds a jurisdiction in equity. And it must be complete; that is, it must attain the full end and justice of the case. It must reach the whole mischief, and secure the whole right of the party in a perfect manner, at the present time, and in future; otherwise, equity will interfere, and give such relief and aid as the exigency of the particular case may require. The jurisdiction of a Court of Equity is, therefore, sometimes concurrent with the jurisdiction of a court of law; it is sometimes exclusive of it, and it is sometimes auxiliary to it.

Fraud, accident, and trust, are proper objects of Courts of Equity, though they are not exclusively cognizable therein. And there are cases of each which neither courts of law, nor of equity, presume to relieve or mitigate; and where the law has determined a matter, with all its circumstances, equity cannot intermeddle against the positive rules of law. And yet there are cases in which equity will control the legal title of an heir, general or special, when it would be deemed absolute at law. Thus, if an heir at law should, by parol, promise his father to pay his sisters' portions, if he would not direct timber to be felled to raise them; although discharged at law, he would in equity be deemed liable to pay them, in the same way as if they had been charged on the land. And many cases of a like nature may be put.

And it has been objected that Courts of Equity sometimes refuse their aid, to the manifest hardship of individuals. But if they were bound by no precedents, a more tyrannical power could not well be imagined, and would deserve this spirited rebuke of Selden: "For law we have a measure, and know what to trust to. Equity is according to the conscience of him that is Chancellor, and as that is larger or narrower, so is equity. 'Tis all one, as if they should make the standard for the measure the Chancellor's foot. What an uncertain measure would this be! One Chancellor has a long foot; another, a short foot; a third, an indifferent foot. It is the same with the Chancellor's conscience."

And again, if the Courts of Equity recognize the universal principles of equity, with little or no more freedom than the Courts of Law, it may be asked why they need to have their jurisdiction separate from the Courts of Law. The opinion of Lord Bacon favored the practice of the English courts, which assign separate jurisdiction. And the majority of the States of our Union have adopted the same plan, though in civil law countries, the general if not the universal practice is the other way; whether more for the advancement of public justice, is a matter of doubt with many learned minds. But the courts of the State of New York, in its new code of procedure, adopted the practice of the civil law courts. And the question must remain a mixed question of public policy and private convenience, and never can be susceptible of any universal solution, applicable to all times, and all nations, and all changes in jurisprudence.

If the general reader is enabled to correct, in any measure, his mistaken notions of equity jurisprudence, or to form any conception of it from this single page, he may feel assured of the authority of the opinions herein advanced; as the very learned Justice Story has been consulted in almost every sentence, and in every instance in which he has been consulted, he had drawn his knowledge from the highest authorities.

Art. VII.—THE PRESIDENT—SUB-TREASURY—TARIFF—SLAVERY.

WASHINGTON, *February* 27, 1849.

TO FREEMAN HUNT, Esq., *Editor of the Merchants' Magazine.*

MY DEAR SIR:—I have endeavored, with some considerable solicitude, to ascertain who are likely to compose the new cabinet; but, such has been the wise discretion of the President elect, that we hear nothing but vague rumors, as ephemeral as they are unreliable. It is admitted by all, even by the knowing, that thus far the General makes a good beginning, and this is appreciated as a satisfactory type of coming events, giving rise to a general opinion, that the gentlemen to be selected will represent important sectional interests, possessing, at the same time, the entire respect of their fellow-citizens, for the liberal and enlightened views they entertain, in relation to the national policy. There seems to be no suspicion that the President will allow himself to be trammelled, or embarrassed, through the influence of any mere party considerations, nor is it imagined he will admit or tolerate the least shadow of dictation, having determined to act on the conviction, that the most prudent course for him to pursue, with regard to his own reputation and convenience, will be to encourage and bring forward commanding talents, avoiding as much as possible, and consistently with good faith, those who have heretofore occupied prominent positions, as advocates of ultra doctrines. It is said to be his fixed purpose to protect his cabinet from the insidious influences of internal rival collisions. In order to guard the measures of the government from assuming any other than a national character, he should rest on the integrity and enlightened patriotism of Congress, entertaining no doubt that there will eventually exist the most perfect harmony between the legislative and executive branches of the government.

As these impressions gain strength and confidence, the best informed, especially those most anxious for the success and endurance of our institutions, seem to feel a sanguine hope that the financial and political prospects of the country will continue to improve, honestly believing, under the influence of certain well-advised practical modifications of the Sub-Treasury and the Tariff, that the former may be enabled to operate with greater freedom, and the latter prove as beneficial to the interests of the people and government, as it now is to the government alone, and through the influence of such modifications, secure a more perfect sentiment of union, harmony, and the conservative spirit of American nationality, than now exists.

To repeal either, or both these great national measures, could not fail to create a bitter renewal of the old party strife. Such indiscretion would immediately give rise to a question of principle, feigned or real, in which expediency and truthfulness are forgotton, surrendering place to passion and prejudice, through which the industrial portion of the population, the democratic masses, are most sure, ultimately, to suffer. The friends of the coming administration can have no motive to make any changes, beyond such as are absolutely necessary; such, in fact, as those who have lost favor would, but for a matter of pride, be most willing to concede, as essential ingredients to the perfection of their own measures. There is certainly no more important truth, in the every day experience of the world, than that constant vacillation in public and private affairs leads to inevitable mischief; and while acting with this knowledge, familiar to the humblest intellect, ought we not to anticipate that prudential considerations will dictate the adoption of a course of premonitory tolerance. If the whigs will submit themselves to be judged,

by the honest intelligence of the people, they will not only have the satisfaction to merit respect, but they will, by presenting such evidences of moderation and integrity, create in the public mind a high sense of propriety, which must and will exercise a future salutary controlling influence. They will then discover, what is very little understood, that while the American people often improvidently and illy bestow their confidence, there still preponderates the great preserving talisman of the nation—its universal good sense—the sober second thought. It is not an uncommon boastful remark, that we are above and entirely independent of foreign opinion; but with all due deference to such bigotry, I would respectfully suggest, as due to our national importance and moral influence, among the mighty political family, that we should cultivate a love of good fellowship, a longing desire to be distinguished for the most scrupulous probity, persevering consistency, and enlarged views of political economy. If such should be our prominent national sentiments, we shall have created a tribunal of public opinion, fully competent to test the relative value of theories, when compared with the established evidences of practical experience. If we may judge by the vicissitudes which attend our legislative councils, the rapid revolutions of political life, and the absolute disregard which has been exhibited for constitutional law and organization, we can easily foresee the prospective necessity for the introduction of some radical change in our legislation. To say that members of Congress do not hold themselves responsible to their constituents, or that they willingly neglect to perform their duties, would be to censure without reason, but, that the country has just cause to complain of the waste of valuable time, all will admit, which, when lost, estimated on the dogma of Grecian wisdom, is the most expensive extravagance.

To what end, and for what purpose, should we get rid of the Sub-Treasury? It has, thus far, with all its faults and trials, done its duty faithfully. The country has passed through an unexpected war, involving an immense expenditure of treasure, without wavering; and with similar soundness in the movements of our monetary affairs, we have with perfect regularity and calmness preserved ourselves through a period of great speculative excitement. In my judgment, had we been deprived of the controlling interference of this power, a wild scene of ruinous extravagance would have been exhibited, which, like the mania of 1836, would have terminated in general and disgraceful bankruptcy. The system has acted conservatively, through the natural force of its inherent power to check expansion. The importation of twenty millions of dollars, the price of our breadstuffs, would have inflated the currency to such an extent, had the banks been at liberty, that, by this time, we should either have failed to perform our contracts, or have returned to Europe double the amount of specie we extracted. The Sub-Treasury kept down the value of foreign merchandise to specie prices; and in the ratio of its influence, in regulating our home market, were our merchants enabled, those, at least, who were moderate in their expectations, to make fair and profitable voyages.

Notwithstanding the gold fever of California, while it draws from the Atlantic some of the most valuable of our population, and brings to our shores, in anticipation of large profits, the rich products of foreign industry, we nevertheless see and feel that there is in active operation a restraining and restrictive supervision. If the consumption do not meet the supply, the depository becomes plethoric, and in the ratio of its extra collections, restrains the paper issues to the criterion of a limited metallic basis. We either take the goods at

a sacrifice, stopping importations, or reshipments must follow, on account of their owners. This check is constant and immediate; its accumulations cannot be concealed nor disguised; there can be no deception nor evasion; and should the banks disregard its salutary admonitions, they would soon find their solvency in imminent danger.

If the head of the Treasury should be authorized to check freely, on the deposits, to discharge the indebtedness of the government, or to transfer credits, to suit the convenience of the department, the Sub-Treasury system would be relieved of an important embarrassment; and, if to this should be added the issue of certificates of deposit to the public creditors, or the admission of transferable credits, on the books of the Sub-Treasuries, every facility would then be afforded, in accommodation of the legitimate business of commerce. In these simple modifications, there would be no material increase in the volume of circulation, while the specie, in deposit with the government, would be more advantageously and conveniently represented; and being so relieved, the substantial objections to the system would be essentially removed.

In this country and in Great Britain, the state of the foreign exchanges has been considered a fair evidence of the condition of the bullion market; but with what propriety this has proved a reliable criterion, we can only judge or form an estimate by the many, and apparently unforseen, repetitions of fiscal panics. This dependence on the current of exchanges has ever proved fallacious. When they are supposed to be favorable, they lead to immediate bank expansions; and when, running counter or adverse, the mercantile public become immediately alarmed, then each individual and monied institution acts on the exclusive principle of self-protection.

The influx into the Sub-Treasury not only gives timely warning, but materially operates to produce a heathful state. If the importations be excessive, the deposit increases, and the banks, losing their specie, have necessarily, from prudential considerations, to curtail their discounts; and as a consequence of this strictiveness, prices fall, and remittances become limited. Though the rate of the exchanges may decline, through the pressure, still, remittances are made with reference to the stringency.

The Tariff. If we may judge, from the reluctance with which this subject is approached, there is good reason to believe that there exists an important difference of opinion, among the members of both parties, how far it is expedient to interfere with its operations. It is certain, since the free trade doctrines have been in practice, that the public revenues have increased, and it is equally true, the commerce of the country has been materially expanded. If these are the real signs of prosperity, there can be no cause to complain; and while the foreign exchanges evince a balance of trade in our favor, they would seem to be substantial. In thus stating the case, the apparent evidences are in support of the tariff of 1846; and yet there can be no doubt, that since it has been in full experiment, many of our most valuable domestic enterprises have become embarrassed. There is also this further fact, in favor of our present experience, that almost every shipment made to the United States is extremely profitable, especially those from France; and to such an extent has this been realized, that the fear of any change in our policy is the daily subject of solicitude to the official representatives of that country.

In order to be entitled to a wish, on our part, for a continuance of this peculiar and extraordinary state of our foreign commerce, we ought to be

satisfied that there exists a perfect reciprocity. It is not enough, that those who are immediately engaged in the business of importation, are making successful speculations. We must look further, for the purpose of ascertaining whether the aggregate is beneficial to the whole. The history of Portugal shows that a similar commercial era existed, when large fortunes were amassed, by British merchants, during a period of thirty years, from 1697 to 1726, when upward of $500,000,000 of gold were withdrawn; and in 1754, when it was discovered that the whole amount of specie did not exceed $4,500,000, the celebrated Duke of Pombal perceived the necessity of extending protection, and, as a medium of relief, created mercantile corporations, with manufacturing privileges. Is it not possible that this may be our approximate condition? The immense amount of gold imported in 1846, increased by a large demand for our government stocks, has kept down the exchanges, and for the present sustains this adverse trade. There can be no doubt that every article of American produce is extremely depressed, and compared with the value of 1846, scarcely yields a moiety. If we were to consult the Treasury returns, we might be led to believe that our exports were beyond the imports; but, when we reflect that the export invoices are generally made high, on which no duty is paid, and that those of importation are rated low, to avoid the payment of the highest per centage, we must come to the conclusion that the official statistics are little more than vague representations.

But, whether there be any force in these statements or not, one thing is most certain, that the price of money is extravagant, and that most of our valuable manufacturing establishments are prostrate. The cotton, woollen, and iron business is in a most lamentable condition, and in a corresponding manner are our agriculturists, farmers, and planters suffering. In every direction, our operatives want employment, and mining has ceased to be remunerative. These are facts which cannot be questioned. They are matters of general knowledge, such as speak without equivocation, and prove, that whatever may be the flattering theory of free trade, experience will bring us down to practical results.

It would be well to bear in mind the state of commerce, previous to the passage of the act of 1842; because, by so doing, we shall discover our foreign trade to have been precisely the counterpart of that which is now officially esteemed an extraordinary state of prosperity. If Congress and the community would take counsel by the past, the evil day might be avoided; but if they do not, I venture to predict that we will soon perceive symptoms of distrust.

Notwithstanding the millions which have been expended in the erection of iron works, it is an extraordinary fact that there exists but one unfinished contract for railroad bars, which contract is strictly enforced because of the superior quality of the American manufacture. In excuse for this disregard of our home industry, we have the stale apology that there should be no restriction placed on the consumer; but, when we examine into the practical beauties of this theory, every individual might say that he would not pay taxes, because he required no government. In order fully to comprehend the rights of the community, as independent of the individual, it is but necessary to remark, that the sum paid for a ton of domestic iron, is the aggregate compensation of a great variety of labor. In order to produce this ton, we employ miners of ore and coal, the yield of our own soil, and through the whole progress of completion, American labor and capital are sustained; while, on the other hand, if we neglect this cardinal interest, the joint product of almost every in-

dustrial pursuit, we become the patronizers of foreign labor, capital, and enterprise, to the exclusion of our own.

Through this long letter, you will perceive that I hold to no ultra points. Abstractions, in my judgment, very wisely lead to investigation, but, in practice, they never can stand without the support of auxiliary assistance. So with moral and political associations; the doctrines of socialism, universal love, and common property, have no reality as the elements of strength, combination, and prosperity. I am, however, a substantial believer in the effective preservative policy of the Sub-Treasury; and I would look to the advent of a national paper currency, based on the hypothecation of stocks, as the certain road to ruin.

I will now finish with a suggestion, perhaps as novel as in the onset it will be unpopular; but, being practical and of easy execution, it may merit the most serious consideration. I thus venture to deliver my views for what they are worth, under a full sense of the delicate obligation, we all and individually owe to each other and to the country, not to interfere with subjects and controversies purely sectional, unless there exists a reasonable prospect of rendering an efficient service, private or public. It cannot be disguised that the slavery question, to which I allude, has assumed a shape and interest at home and abroad, which calls on every one, associated with the excitement, maturely to weigh and deliberate, not only the motive with which he acts, but what is to be the probable result. To take any other view of this peculiarly embarrassing matter, would evince a predetermined disposition to seek the end, heedless of the consequences. It certainly does not evince any regard for the true principles of philanthropy, to press forward an event, either through the desire to indulge the kindest feelings, or to advance some plausible political assumption, where the issue may lead to the most indescribable atrocities; and to such an extent may this mischief propel itself, that those who are now instrumental in bringing it about, may, in turn, become the avengers of scenes of the most savage barbarity. I will press this phase of the subject no further, leaving to the good common sense of those who feel a conservative disposition to measure and reflect on the whole matter with humanity, and in a spirit of mutual and reciprocal fellowship.

It is probable that those who are most urgent in precipitating abolition, would risk throwing the country into a civil, and with its inevitable attendant, a servile war, to gratify a morbid propensity to interfere with interests which do not immediately, or, at least, do not directly affect them, and of the most insidious and dangerous of these disturbing elements we may rank the recent political crusade, the sudden and extraordinary revelation of the obligatory duties of a sectional free soil patriotism. I have been through the South, and visited the Island of Cuba, observing with solicitude the state and condition of the colored population, and in addition to these opportunities for inquiry, I have sought, with much assiduity, every means of acquiring information, as to the effect and influence of emancipation in the West Indies. I may be mistaken; I may have formed a wrong estimate; but my uniform conviction has been, that a state of dependence and reliance on the forecast and providence of white supervision is essential and necessary to the comfort of the blacks. I know there are exceptions to this general conclusion; but they are like the dark spots on the sun, they do not invalidate the material truth. There are, however, exceptional practices among the blacks, but even these are not universal, which might and ought to be restrained, but which can only be eradicated through the superior social influence of their more fortunate neighbors.

In the West Indies, where emancipation has been proclaimed with the loud

and clarion voice of liberty, those who work are most indifferently compensated, irregularly employed, their families entirely dependent on the pittant remuneration received for their industry; while those who seek service, but to satisfy the immediate wants of nature, live in a state of the most wretched indigence. To such an extent was the universality of indolence and improvidence in the favored and wealthy Island of Jamaica, that it became necessary to import, at the public expense, as apprenticed labor, the re-captured negroes on the coast of Africa, and even this extraordinary means of acquiring agricultural substitutes has proved a complete failure. The Island of Jamaica, like almost every other similarly free, has fallen from the highest state of prosperity into the most serious embarrassments. What is the situation of the anomalous republic of Saint Domingo, but a spurious experiment at civilization. The government is a despotism, and the people nothing better than the vassals of power; and the experiment here, of civil liberty, was ushered in through the most diabolical exhibitions of fiendish atrocity. If there was a crime unknown to revolutionary France, St. Domingo could have furnished the illustration. Men, women and children were abused, polluted, and sacrificed; and there are those who sought the United States, in such wretchedness, as an asylum, who cannot recall to their recollections the dangers they passed without shedding a sad and melancholy tear on the prospects of those who may be similarly exposed.

As an aggregate, the southern slaves are in a much more contented state, subject to fewer wants, solicitudes, and privations, than populations claiming to be civilized. The serf subjects of northern Europe are sold with the soil, bound with it, through curbs and difficulties they have neither the knowledge nor presentiment to appreciate. If, for argument, it should be admitted that slavery were abolished, and this without reproducing the calamitous results which have attended corresponding experiments, is it not morally certain that the most enterprising and capable would seek employment where the tariff of labor is best understood, and then what would be the result? Would it not terminate in producing a perfect derangement of the remunerative resources of well regulated industry? To the southern emigrant it would be ruinous; and to those who are left behind, having lost an owner's care and their natural dependence, the change would not be less disastrous. The Utopianism of the prevailing philanthropy would soon find a novel field of distress for their sympathy, when political ambition would rail against those who have produced the issues of abolition as the worst enemies of the country.

Let us now examine this subject in another phase. Let us see whether there may not be some pecuniary and political considerations worthy the sound, deliberate attention of statesmen and men of business. Is it not true, that to the confederation we are indebted for the independent power and influence we possess? and, if so, has not this desirable and enviable state been produced, through the combined industry, productions, and enterprise of each and every section of the United States? There are none who will dispute these positions, while there may be some who will doubt that the great substratum of our prosperity, political, commercial, *agricultural*, and manufacturing, is essentially the fruit of southern climes and from southern labor. If it had not been for the devoted patriotism with which the Union has been held together, what would have become of the North, deprived of the rich resources of the South? It was worth a high bid from Great Britain to effect a severance of the confederation, and but for her short-sighted policy she would have extended an insidious liberality to the southern planter, instead of

indulgence to the eastern States during the last war. To the wealth we have accumulated from the European consumption of cotton, rice, and tobacco, do we owe our general prosperity; and but for these great staple commodities, our power over the wants of the transatlantic labor would dwindle down to a mere rivalry. Take away from your control the incidental rule you possess over the industrial pursuits of Great Britain, and her free trade doctrines would be limited to partial favoritism.

I do not mean to infer that our connection is an exclusively one-sided affair. On the contrary, I know that we are reciprocally and intimately dependent on each other, that we could not separate without mutual injury, nor could we exist in friendly intercourse with separate governments. The issue of such an effort would be fatal, and after a long, painful, protracted collision, we might come together without sympathy, with the loss of character and our best interests prostrate.

In this view of this most serious matter, the proposition I now make would, I foresee, lead to those gradual changes and ameliorations which we all must desire, and with mutual compromise and concession, should endeavor to produce. In several sections of the country, emancipation is anxiously desired, and but for the interference of rude interposition, it would have been long since effected. It would be encouraged in those portions of the country where white labor could be safely and advantageously introduced. The North should look well to the result; there is a powerful difficulty to be encountered; the intelligent philanthropist of the South could feel justified in throwing black labor on its own resources, in collision and in connection with the more skillful and provident industry of the white. The colonization society, in despite of its best efforts, and the liberal patronage of the public, meriting the respect of the highest feelings of humanity, is, nevertheless, impotent, as a grand source of relief, while, through the appliances of its organization, it may be enabled to render the most beneficial services; but of this there may be some doubt, as it may be apprehended that Liberia is the beau ideal of the proper scene of action.

Based on their expectations of rendering a great national service in the settlement of free blacks, let Congress establish a territorial government on the Pacific, located in some genial climate, where the soil is easily cultivated, limiting and restraining the emigrant population to the locality selected; we should then have an accessible and practical, an attractive and convenient theatre for colonization. The enterprise of the country bids fair to afford a rapid and easy intercommunication, which would convey thousands at less expense and danger than hundreds now cost. It is needless to talk of the growing prosperity of Liberia, the civilizing influence on the native African. It is but a drop of comfort to our necessities; and addicted to idleness and improvidence, the African brood, in its native aboriginal home, is unsusceptible of exertion.

To the Pacific emigration would flock. Those who parted from the land of their nativity would not feel that they were breaking the strong ties of relationship, nor the hope, the pleasurable hope, of reunion on the territorial soil of the country of their adoption. In thus raising a colony of our colored population on our western shores, we should soon find that the expense of the establishment would be fully remunerated; while in so doing, we could in sound and wise policy declare Liberia free, abandoning it to the fate consequent on its independence. We require no foreign settlements; they always produce trouble; and independent of their extravagance, they assume certain national positions tending to create embarrassments with foreign powers.

Respectfully, yours, ALEXANDER HAMILTON.

MERCANTILE LAW CASES.

SANDFORD'S SUPERIOR COURT REPORTS.

This volume is the first of a series of Reports of the Decisions of the Superior Court of the city of New York, now composed of Mr. Chief Justice Oakley and Justices Vanderpool and Sandford, the latter of whom reports the decisions of the Court.

The Superior Court has, since its organization, maintained a high character for commercial intelligence. Perhaps we are justified in saying that no one court in the United States, since its organization in 1827, has heard so many causes relating to insurance and commercial law (arising in the transactions between merchant and merchant) as the Superior Court. The present volume does credit to its author not only as a reporter, but as a judge, who has, in many cases, given his opinion judicially, at length, on cases reported in the volume before us.

We will refer to two cases, reported at page 361 in this volume. The cases are Manfield *vs.* Douglass—Goodhue and others, which discusses the doctrine of consignments, and the duties and liabilities of factors and agents, when the latter persons have advanced funds at the time, and after the consignments were made, but before sale. A commercial correspondence is set forth at length, between the parties. The plaintiff resided at Chillicothe, Ohio, and the defendants (who were commission merchants) in New York.

The plaintiff had, during the year 1846, consigned a large amount of pork to the defendants, to sell on commission, and the defendants, at various times, had advanced money to the plaintiff. Seventeen hundred and fifty-one barrels were sent to Douglass, from time to time, between the 19th of June and the 19th of August, 1846, who received the same on consignment for sale. The defendant paid the freight and charges of transportation from Chillicothe to the city of New York, the aggregate of which was about $3,700. The defendant also paid for insurance, inspection, and other incidental expenses, about $1,200. Thus $4,900 was advanced, before any of the pork was sold. After the pork was received, the defendant advanced on drafts, and paid at the plaintiff's request, upwards of $10,000 more, before the pork had been sold. The defendant received a letter from the plaintiff on the 13th February, 1847, directing him to sell pork at $12 a barrel, and for no less, and also to take advantage of the rise in the market, if there should be any, as the sales were made. On the 14th December, 1846, the plaintiff had written to the defendant to withdraw his pork from market, and not to sell a barrel of his pork at the then present prices. On the 14th of January the plaintiff wrote to the defendant, that if he needed the advances made on the pork, that he would remit the amount, on a reasonable notice. The defendant stated, in reply, that he did not consider himself deprived of the power of selling, if the market goes up to a price which, in the exercise of a sound judgment, he might think best to secure. The pork was sold, after the instructions were received, for the sum of $9, $9 12½, $9 25, and $9 37½ per barrel, and ranged as high as $9 75 in January. It rose to $12 in February. The plaintiff, when notified, disapproved of the sales in January, and wrote to the defendant, on the 14th of January, that the sales had been previously made contrary to his positive orders, and he should expect that the defendant would replace his pork by other pork of as good a quality as the plaintiff's brand. On the trial, it was admitted by the defendant that the price of prime pork, on the 13th February, 1847, when he received the plaintiff's letter directing him to sell, was from $12 50 to $13 a barrel, and that the difference between the $12, and the price for which the defendant sold 1,051 barrels, amounted to $2,921 37½; which sum, with interest, the plaintiff claimed to recover. The Court, in giving their opinion, which is delivered at length in this volume of reports, came to the conclusion—

1st. That the factor has a right to sell enough of the goods consigned to him

to pay his advances upon the goods at the time he receives the same; and that, for subsequent advances, the factor has also the right to sell so much of the goods as is necessary to make up the subsequent advances, unless the consignor tenders to the factor the amount of his indebtedness; and also that the factor is bound by instructions, and is bound to make good the loss for sales made by him, beyond the indebtedness to him.

2d. That when the factor has received instructions not to sell, he, the factor, will be liable to his principal in damages, if he sells more than enough to repay his advances.

3d. That advances made by a factor for freights, duties, warehouse, insurance, and inspection charges, clothe the factor with the same authority to sell as advances directly made to the principal in money.

4th. That a promise made by a factor to withhold consigned goods from the market is void, for the want of consideration to the extent of sales made necessary to pay the amount of advances due by the principal. The plaintiff, in one of these cases, recovered judgment for the amount which the pork ranged in market at the time the consignor gave liberty to sell, beyond the price which the pork actually sold for, to the extent of the overplus of sales, beyond what was necessary to reimburse the factor's advances.

In the other cases, it appeared that the defendant had not sold more pork than enough to realize the amount of the consignor's indebtedness to the factors for advances; and although the pork had been sold contrary to instructions of the principal, and at a loss of near $5 per barrel below the market price, at the time the principal had directed the pork to be sold, yet judgment was rendered for the defendant.

One of the defendants wrote the plaintiff on the 30th January, 1847, that he claimed the right to sell merchandise held under advances at his discretion, and it seems the Superior Court sustained him in this position.

The next case we call the attention of the public to, is that of Cowperthwaite against Sheffield. This was an action on Bills of Exchange, drawn by Reed & Co., of Mobile, in February, 1837, on Kelly & Co., of Glasgow. The doctrine laid down by the Court in this case is, that a Bill of Exchange, drawn against a consignment of goods, does not operate as an assignment of the proceeds, unless there is a letter directing such specific application accompanying the consignment; nor does such a consignment bind a consignee to accept the bill, or apply the proceeds to its payment, unless the consignment directs it to be done.

We have always supposed this to be the law, and to prevent the consignor drawing bills against consignments made, and then, after the bills have been sold in market, going to the consignee and withdrawing the proceeds of the consignment to his own use, and defrauding the endorsers of the bill. We have in our own mind believed it to be a necessary rule for commercial safety, that the bill of lading directing the payment of the bill of exchange, or the transfer of the goods by the consignee to the holder of the bill when present, all should be attached to it, or accompany the bill of exchange; indeed, a copy of the bill of exchange ought to be attached to the bill of lading, or the bill of lading should contain a note that a bill of exchange had been drawn against the consignment, and that, if the consignee would not accept the bill of exchange, the property was to be passed over to the holder of the bill of exchange.

The Court also held in this case that an order, drawn in express terms for a particular fund, will operate as an assignment of that fund; but that such an order is not a bill of exchange, and is not negotiable.

We also call the attention of the public to a case at page 351, of Wilson against Little. The Court held, in this case, that when personal property, consisting of railroad stock, is pledged to secure a debt payable on demand, that the pledgee, or holder of the stock, cannot sell the stock or property without first demanding payment of the debt.

There are many other cases reported in this volume, of a commercial character, several of which relate to mutual insurance companies. We refer to a case page 158, which was an action brought by the receiver of the Croton Insurance Com-

pany, to recover the amount of a promissory note for $5,000, made by the defendant as one of the mutual stockholders of the company. The Court held in this case, among other things, that such a note was valid in the hands of a receiver for the purpose of paying losses after the company became insolvent, though the maker had not received the amount of the note for his premiums on insurance, made by the company; and also that an agreement made by the president of the company, on receiving such a note, that it should be given up at maturity, was void, as a fraud upon the creditors of the company.

Indeed, we hope that our commercial readers will look at Judge Sandford's book. They will find a great deal of commercial law ably discussed, clearly and logically written, and in a style that does credit to the author and the judges of this highly useful court, which, under the late amendments of judiciary law, has become a branch of our Supreme Court, as appeals are made from the former court directly to the Court of Appeals, which is the one of dernier resort in this State.

THE LAW OF PATENTS.

The Queen *vs.* Prosser.—In the Court of Chancery, this case, which was an appeal from an order of the Master of the Rolls, was argued last week. The question was, whether the Attorney General was warranted in admitting a Mr. Van Wart, a citizen of New York, not a subject of or domiciled in this country, to sue out a scire facias for repealing, or inquiring into the merits of Mr. Prosser's patent for manufacturing iron pipes. Another objection to the Attorney General's fiat for issuing the scire facias was that the bond given by Van Wart for securing the costs was insufficient, considering that he was an alien. The Master of the Rolls having decided that the Attorney General had uncontrolled discretion in the whole matter, dismissed the application to him with costs. The Lord Chancellor now giving his judgment on the appeal, said he was of opinion during the argument that the Master of the Rolls was right, and now, after reading the papers and affidavits on the matter, he had no reason to alter that opinion. His lordship having stated the principal objections made to the course pursued by the Attorney General, said the matter was entirely within his discretion. He (the Attorney General) was himself the prosecutor of the scire facias, and had a right to avail himself of the information of every person he pleased to investigate the merits of the patent, to defend the prerogative of the crown and the interests of the public. With respect to the bond for costs, that was of modern introduction, even within living memory, being first taken by Attorney General M'Donnell, (as we understood,) who considered that as any person might put the crown in motion to investigate the rights of a patentee, it was but just that the latter, if his rights turn out to be unimpeachable, should have his costs secured to him. That matter was also in the discretion of the Attorney General. If the Attorney General saw it proper to put this patent in a course of investigation, this court had no jurisdiction to control or regulate his proceeding. The Master of the Rolls: judgment must be affirmed. Mr. Webster: And with costs? The Lord Chancellor: It is for the Attorney General to consider as to costs. The Attorney General made no reply.

COMMERCIAL CHRONICLE AND REVIEW.

THE MONEY MARKET—IMPORTS AND DUTIES AT PORT OF NEW YORK FOR SIX WEEKS—IMPORTS OF DRY GOODS AT PORT OF NEW YORK—FOREIGN MARKETS—RISE OF UNITED STATES STOCK AND BRITISH FUNDS—QUOTATIONS OF AMERICAN STOCKS IN LONDON—DEMAND FOR NEW YORK STATE STOCKS—BANK CIRCULATION OF NEW YORK—SECURITIES FOR FREE CIRCULATION IN THE HANDS OF THE COMPTROLLER—AMOUNT OF NEW YORK STATE STOCKS HELD AT HOME AND ABROAD—RATES OF EXCHANGE IN NEW YORK—IMPORTS OF BREADSTUFFS INTO GREAT BRITAIN—CONSUMPTION—RECEIPTS OF WHEAT AND FLOUR AT TIDE-WATER VIA NEW YORK CANALS, AND WEEKLY PRICE OF FLOUR FROM 1845 TO 1848, INCLUSIVE—COMMERCIAL PROSPECTS—OPERATION OF THE CALIFORNIA GOLD FEVER—THE LAW OF COMMERCIAL REVULSIONS—SYMPTOMS OF A TENDENCY TO SPECULATION—BANK PROJECTS, ETC.

MONEY, which was in growing abundance until the close of January, subsequently became somewhat more in demand, under the influence of many operating causes. Among these were the large importations of goods, accompanied by an early and active demand, for the spring trade, causing the prompt payment of considerable sums in specie for duties, the usual demand for money for the payment of rents at the February quarter, and the extensive influence of the California excitement, which caused a demand for considerable capital, and has aided to advance the rate of money in all the Atlantic cities, Boston and New York more particularly. The importations at the port of New York for January and the first week in February, for two years, have been as follows:—

IMPORTS AND DUTIES AT THE PORT OF NEW YORK FOR SIX WEEKS ENDING FEBRUARY 16.

	Specie.	Free.	Dutiable.	Total.	Duties.
1848.....	52,209	520,652	11,344,296	11,917,157	2,865,965
1849.....	60,700	620,945	11,210,034	11,891,679	2,750,987

The quantity of dry goods imported in the same period, distinguishing the general descriptions, was as follows:—

IMPORTS OF DRY GOODS AT THE PORT OF NEW YORK.

Week ending—	Wool.	Cotton.	Silk.	Flax.	Miscellaneous.	Total.
January 5.....	$6,544	$88,886	$128,679	$13,807	$21,223	$259,139
" 12.....	59,539	95,237	416,355	26,903	34,349	632,383
" 19.....	84,779	131,956	318,921	58,946	94,006	689,615
" 26.....	170,411	417,814	913,690	136,074	97,611	1,735,308
February 2.....	166,132	463,737	547,671	190,758	177,925	1,546,223
" 9.....	305,811	623,021	571,116	151,572	167,936	1,819,454
Total.....	$793,216	$1,820,651	$2,896,232	$578,060	$593,050	$6,680,126

This very considerable supply composes the imports for the spring business down to its commencement, which was this year early. These large importations being in demand for the spring business, required large sums in specie for the discharge of duties, and these operated upon the banks to prevent the loan of money for other than the most legitimate commercial transactions. The operation of business upon the cash system, now comparatively prevalent in reference to the extended credits of former years, is to promote an abundance of money.

In former years, when there was a constant demand for capital on the part of those whose sales were on more extended credits than those on which they are enabled to purchase, the progress of the spring trade enhanced the scarcity of money. In the present time, when sales at shorter credits involve payments from the

country, as the season progresses the supply of money keeps pace with, and rather exceeds the demand, causing a fall in rates, more particularly when the exports of the country are greater in volume and rising in values. This is now the case in regard to American produce in Europe. Commercial affairs, which were last year so disjointed and convulsed, have accommodated themselves to the political circumstances of the day, if not entirely relieved from the fears which those circumstances excite. The industry of England and of Europe has revived to some extent, and the small purchases of last year will probably require to be compensated by some increase of demand for the present year. The prices of cotton have continued to advance under very considerable sales, and the health of the demand for breadstuffs and provisions has been extended by the final removal of the sliding scale of corn laws in England on the 1st February, according to the terms of the law of 1845; the duty being now 1s. per quarter, say 3 cents per bushel, on all grain. The improved confidence in affairs, resulting from the election and peaceful inauguration of Prince Louis in France, has promoted the facility of realizing property, both stocks and real estate, in France. The rise in values is, however, checked by the fact that many avail themselves of the ability to sell at all, in order to transfer their property to countries of more stable governments. In England also, the great financial reform movement of the association headed by Mr. Cobden, who professes the desire to reduce the expenditure of the British government to the scale of 1835, or, in other words, to effect a saving of £10,000,000 per annum, and to apply the saving to a corresponding reduction in those indirect taxes which bear too heavily upon the "springs of industry," and by so doing retard the consumption of manufactured goods, and therefore lessen the amount of trade and diminish the general prosperity, presented so formidable a front that the minister evinced an intention of forestalling the movement by commencing the reform. This, while it gave great satisfaction as indicating the bringing of the expenditure within existing revenues, also proclaimed confidence in the continuance of peace, as manifest in reduced military expenditure. The effect of these circumstances combined in London was, in the latter weeks of January, to cause a rise of 2 per cent in the English threes, and so far to promote the demand for American stocks as to advance United States 6's some five per cent, showing sales for the first time in many years at a premium. The quotations appear to have run as follows:—

QUOTATIONS OF AMERICAN STOCKS IN LONDON—BARING'S QUOTATIONS.

	United States 6's, 1868.	New York 5's, 1860.	Pennsylvania 5's.	Ohio 6's, 1860.	Massachusetts 5's, sterling.	Louisiana 5's, 1850.
February.....	.....	.....	63 a 65	.....	.....	.....
April 7.....	.. a ..	.....	63½ a 66	85 a 87½	92 a ..	76 a 80
July 7.....	94 a 96	89 a 91	65 a 66	85 a 87	96 a 98	80 a ..
August 25.....	96 a 96½	89 a ..	66 a 68	90 a ..	.. a ..	.....
September 22.....	96 a ..	*90 a 91	66 a 67	87 a ..	*96 a 98	.....
November 10.....	97 a 97½	.. a ..	65 a 66	88 a 89	94 a 95½	.....
" 17.....	95 a 97	88 a 89	66 a 67	89 a 90	93½ a 94½	.....
December 1.....	96 a ..	90 a ..	67 a ..	90 a 91	94 a 96	85 a 86
" 15.....	96 a 97½	91 a ..	70 a ..	91 a ..	96 a 97	86 a ..
1849, January 26..	104 a 105	92 a ..	71½ a 72½	93 a ..	98 a 99	87 a ..

The advance in United States stocks during the year has been 10 per cent in London, and other descriptions have partaken to a greater or less extent of the

* With dividend.

demand. Louisiana also improved 10 per cent, Pennsylvania 5's 8 per cent. New York 5's were already pretty well improved before under the demand which had been created by the New York banks, pursuant to the law which requires the deposite of New York State stock with the Comptroller as security, dollar for dollar, for all notes issued to circulate as money. In the year 1847 there was quite a disposition to create new banks, and the purchase of New York stocks for that purpose caused a considerable rise in the prices. In December of last year this movement promoted a panic, and the failure of some of the banks and a decrease in securities results this year. Thus the increase in New York stock, in 1847, held by the State Comptroller as security, and decrease in 1848, was as follows:—

	Increase, 1847.	Decrease, 1848.	Increase, 1848.
4½ per cents	$37,400	$2,000	.....
5 "	2,343,547	574,307	539,194
5½ "	407,000	.....	26,500
6 "	454,073	.....	.....
7 "	185,873	262,532	.....
United States	9,000	.....	.....
Total	$3,436,403	$838,841	$565,694

Originally, the law required the 6 per cent stocks of any of the United States, or bonds and mortgages, to be deposited as security. There were no United States stocks in existence when it was passed, the national debt having been finally extinguished in 1835. A brood of banks grew out of this, which nearly all exploded, suggesting many changes. Accordingly, the securities were restricted to New York stocks, United States stocks, and bonds and mortgages. Speculators in New York stocks then succeeded in creating a demand for them by getting a bill passed to exclude United States stocks. The failure of the Atlas Bank then demonstrated the unavailability, as security, of large mortgages without power to foreclose, and the reception of mortgages was restricted. It is now sought to restore United States stocks as security, and to require the withdrawal of all mortgages now held at the rate of 10 per cent per annum, to be supplied by United States or New York stocks. Last year a bill passed the Legislature permitting chartered banks to extend their circulation beyond the limits of the restraining act of 1847, by giving "ample security," which was construed to mean stocks. The circulation of the banks of New York, since the enactment of the new law, has been as follows:—

BANK CIRCULATION OF NEW YORK, DISTINGUISHING FREE AND CHARTERED.

	Circulation.		
	Chartered.	Free.	Total circulation.
January, 1839	$19,373,149	.....	$19,373,149
" 1840	10,360,592	$3,859,712	14,220,304
" 1841	15,235,036	3,221,194	18,456,230
" 1842	12,372,764	1,576,740	13,949,504
" 1843	9,734,465	2,297,406	12,031,871
November, 1843	13,850,334	3,362,767	17,213,101
" 1844	15,144,686	5,037,533	20,152,219
" 1845	15,831,058	5,544,311	21,375,369
" 1846	16,033,125	6,235,397	22,268,522
May, 1847	17,001,208	6,808,345	23,809,553
November, 1847	16,926,918	9,310,378	26,237,256
March, 1848	14,391,504	8,656,522	23,048,026
November, 1848	14,311,077	8,895,272	23,206,289

The unsecured circulation of the chartered banks continues to form the largest

portion of the whole. The securities deposited for the free, have fluctuated as follows:—

SECURITIES FOR FREE CIRCULATION IN THE HANDS OF THE COMPTROLLER.

Date.	No. of banks.	Bonds.	Western State stocks.	United States stocks.	New York stocks.	Total securities.
Dec. 1841	48	$1,629,176	$1,686,500	.....	$979,500	$4,927,671
1842	52	1,486,194	2,025,254	.....	1,225,837	.....
1843	58	1,525,540	1,900,663	$52,000	1,774,484	5,252,638
1844	65	1,580,526	1,819,293	105,000	3,064,905	6,569,726
1845	67	1,655,589	1,704,293	105,000	3,805,462	7,270,344
1846	70	1,552,265	1,667,700	105,000	4,472,845	7,797,811
1847	88	1,559,362	1,453,924	114,000	7,900,229	11,037,525
1848	104	1,514,979	1,334,204	114,000	7,627,692	10,590,186

The circulation of these free banks is very nearly the same as the sum total of the securities. It will be observed that the Western stocks held were deposited when the law was first enacted, and before the failure of those States. Since then, the legal restrictions have promoted the deposite of New York stocks, New York State stock and a portion of lands and mortgages only being allowed; but the price of New York stocks having reached a high figure, 110 per cent for the 6's, a bill is before the Legislature to permit those of the United States to be again received as security, and to compel the withdrawal of all mortgages. The effect of the bill would be to promote a demand for United States stocks for banking purposes. The effect of the law has already been to draw a large amount of New York stocks from Europe, to an extent indicated in the following table. The New York Comptroller, in answer to a legislative resolution, transmitted a return of the manner in which the present State debt is held, as follows:—

NEW YORK STATE STOCKS.

Description of stocks.	Held in foreign countries.	Held in this country.	Total.
Canal stocks.....	$5,954,160	$10,722,498 91	$16,676,658 91
General fund stocks.....	.....	909,607 00	909,607 00
Comptroller's bonds for loans to treasury.....	20,950	1,399,741 45	1,420,691 45
Stocks issued to railroad comp.			
New York and Erie.....	308,000	2,692,000 00	3,000,000 00
Ithaca and Oswego.....	116,300	199,400 00	315,700 00
Canajoharie and Catskill...	118,000	82,000 00	200,000 00
Auburn and Syracuse.....	102,000	98,000 00	200,000 00
" Rochester....	7,000	193,000 00	200,000 00
Tonawanda.....	1,000	99,000 00	100,000 00
Hudson and Berkshire.....	....	150,000 00	150,000 00
Long Island.....	16,000	84,000 00	100,000 00
Schenectady and Troy....	10,000	90,000 00	100,000 00
Tioga Coal, Iron, Mining Company, &c.....	1,000	69,000 00	70,000 00
Total.....	$6,654,410	$16,788,247 36	$23,442,657 36
Delaware and Hudson Canal Company, (no statement received from transfer officer).....			300,869 44
Total.....			$23,743,526 80

The above statement shows who the holders are, as they appear on the books; but stocks may be and often are held by citizens here in trust for persons residing in Europe, without that fact appearing on the transfer book.

In a Comptroller's report for 1843, a similar statement was put forth, and the comparison of the two statements results as follows:—

NEW YORK STATE STOCKS.

	Held in United States.	Held in Europe.	Total debt.
September, 1842.....	$15,817,248	$10,120,000	$25,937,248
January, 1849.....	16,788,247	6,654,410	23,442,657
Increase.....	$970,999	.....	.....
Decrease.....	.....	$3,465,590	$2,494,591

A portion of the Canal debt, and of the Delaware and Hudson Canal debt, has been paid off since 1842, and a considerable portion of this was held abroad; but it appears that there has been a large additional amount sent here—that is to say, of the outstanding New York stock, a less proportion is held abroad now than six years since. This undoubtedly arises from the fact that the operation of the free banking law has been, by raising prices, to draw the stocks to this country, as well as from those institutions here, where for a long time they have been held as investments, into the hands of weak bankers, and where they now tremble over the market, and are liable on the occurrence of every pressure to tumble down. Thus, in 1842, when $10,120,000 of New York stocks were held abroad, the Comptroller of the State held $1,229,130 of New York stocks as security for the bills of the new banks. On the 1st of December last he held for the same purpose $7,627,092. Thus, in the six years, $6,397,962 of stocks were drawn into the Comptroller's hands as securities for bank notes. Of these, near $3,500,000 was purchased in 1847, and the price advanced from 102 in July to 109 in December in consequence. The result of this rapid multiplication of banks was a suspension of some of them, a selling out of and a fall in the stocks. The quantities of United States stock now going abroad will more than compensate for a drain thus produced.

The Vice-President elect, as Comptroller of New York, in his report, has proposed the enactment, by Congress, of a law similar to that of New York, by which the United States stock should be deposited as security for a "national currency," and an effort to effect this will doubtless be made. Such a system of banking can, however, at best be but temporary, inasmuch as that in 10 years, a large portion both of the United States and New York stocks will be paid off, and the means of security therefore abolished. All these banking movements are, however, the elements of an approaching season of speculation.

The actual withdrawal of a considerable sum of New York stocks from European investments has doubtless affected exchanges; but the new demand for these securities is, however, hastening forward amounts that enhance the supply of sterling bills upon the market, already somewhat in excess of demand from the considerable exports of produce, notwithstanding the large comparative importations. The rates of bills have been as follows:—

RATES OF EXCHANGE IN NEW YORK.

	Sterling.	Paris.	Amsterdam.	Hamburgh.	Bremen.
September 1.....	9 a 9⅜	5.20	40 a 40¼	35⅛ a 35⅜	79 a ..
" 16.....	9 a 9¼	5.20	40 a 40¼	35⅜ a 36	78¾ a 79
October 1.....	9¼ a 9⅜	5.25	40⅛ a 40⅜	35⅜ a 35⅞	79 a ..
" 16.....	8⅞ a 9	5.25	40⅛ a 40⅛	35⅛ a ..	78¼ a 78¾
November 1.....	.. a 8¾	5.17½	40⅛ a 40⅜	35⅛ a 35⅛	78¼ a 78¾
" 16.....	8¾ a 9¼	5.16¼	40⅛ a 40⅜	35⅛ a 35⅛	78¼ a 79
December 1.....	8⅞ a 9	5.20	40⅛ a 40¼	35⅛ a 35⅜	78¼ a 78¾

December	16.....	8¼ a 8¾	5.22½	40¼ a 40½	35⅛ a 35½	78⅝ a 79
January	1.....	8¼ a 9	5.22½	40¼ a 40½	35½ a 35⅞	78⅝ a 78⅞
"	16.....	8¼ a 9	5.20	40⅜ a 40½	35⅛ a 35½	78⅜ a 78⅝
February	1.....	8 a 8¼	....	40¼ a 40⅜	35 a 35¼	78¼ a 78½
"	21.....	7½ a 8	5.32½	40 a 40⅛	34⅞ a 35	77⅞ a 78⅛

These falling rates, under the strength of the demand as indicated in the above table of imports, show how great has been the influence of rising rates for cotton and produce under increased exports, supported by the improved demand for stocks. All these afford indications of the possible reflux of the precious metals towards the United States when the bulk of the spring imports may have been received. It will be remembered that the wants of England in respect of breadstuffs have been very large, notwithstanding that her crops have been good.

The importation and consumption of breadstuffs in Great Britain, for the eleven months of 1848, have been as follows:—

IMPORTS OF BREADSTUFFS INTO GREAT BRITAIN DURING THE ELEVEN MONTHS ENDING DECEMBER 5, 1848.

	IMPORTS.		CONSUMED.	
	1847.	1848.	1847.	1848.
Wheat.....qrs.	2,418,342	2,058,736	2,613,506	1,821,191
Barley.....	754,457	824,300	766,763	798,949
Oats.....	1,633,808	865,728	1,688,324	841,401
Rye.....	68,225	41,984	68,365	37,589
Peas.....	129,201	149,315	165,497	144,474
Beans.....	376,789	433,700	420,910	417,604
Corn.....	3,560,266	1,397,338	3,500,547	1,393,599
Buckwheat.....	22,937	205	23,349	205
Flour.....cwt.	6,296,661	1,157,917	6,776,436	1,074,461
Meal.....	11,791	246	11,791	45
Oat meal.....	57,966	2,755	57,991	2,179
Rye "	777,107	32,859	777,107	20,323
Bean "	71	28	71	28
Indian "	1,437,951	210,084	1,439,078	186,177
Buckwheat meal.....	862	195	862	179

The aggregate import reaches for the year the following enormous amounts:—

	November.	Eleven months.
Wheat.....qrs.	212,359	2,058,736
Other grain.....	434,870	3,712,470
Total.....	647,229	5,771,306
Flour and meal.....cwt.	284,139	1,403,889

This quantity of food cannot be valued at less than $55,000,000, imported into England in aid of a good harvest, and not only without disturbing her currency, but admitting of a constant accumulation of specie and a growing abundance of money.

The revival of trade, the regular rate for food, removed duty, and cheapness of money, then, will doubtless promote a further enhanced consumption of food, more particularly that the railroad calls are again become very considerable, having reached £3,669,342 for January, 1849. The deliveries of flour upon the tide-water from the public works are powerfully affected by the state of the foreign markets, and indication of this is afforded in the weekly deliveries of flour and wheat upon the Hudson from the New York canals for several years, with the weekly prices of flour in New York for the last two years.

RECEIPTS OF WHEAT AND FLOUR AT TIDE-WATER VIA NEW YORK CANALS, AND WEEKLY PRICE OF FLOUR IN NEW YORK FOR 1845–6–7–8.

	1845.		1846.		1847.
	Flour. *Bbls.*	Wheat. *Bush.*	Flour. *Bbls.*	Wheat. *Bush.*	Flour. *Bbls.*
To June 1st....	466,677	71,347	482,422	129,744	609,935
June.—1st week	62,272	14,278	109,033	63,530	179,417
2d "	54,871	14,433	136,296	59,122	188,281
3d "	55,964	19,185	119,765	32,970	147,600
4th "	46,777	27,582	128,644	33,229	234,831
July.—1st "	39,774	28,233	88,202	61,342	218,106
2d "	36,391	12,869	83,828	68,717	129,560
3d "	50,789	27,152	183,722	87,948	146,132
4th "	59,382	21,573	65,490	79,363	151,016
Aug.—1st "	46,463	549	50,520	31,247	104,201
2d "	41,137	7,402	52,738	36,554	79,953
3d "	42,943	15,421	65,175	85,826	99,271
4th "	53,909	29,080	73,218	75,094	104,250
Sept.—1st "	49,458	21,032	51,235	80,170	74,766
2d "	75,819	34,825	69,009	137,118	68,095
3d "	77,078	70,871	79,157	159,425	69,740
4th "	82,289	85,797	115,630	156,090	90,628
Oct.—1st "	89,412	75,572	106,026	135,125	98,152
2d "	81,322	82,600	98,032	193,127	103,584
3d "	127,599	144,945	120,682	269,205	126,717
4th "	146,858	182,156	65,166	123,034	149,480
Nov.—1st "	146,397	126,180	178,488	282,499	168,718
2d "	132,114	110,190	196,104	211,105	150,897
3d "	240,580	185,543	240,652	203,249	176,855
4th "	179,350	197,269	144,450	123,179	274,633
Total...	2,487,587	1,581,492	3,300,050	2,923,664	3,944,818

TABLE—CONTINUED.

	1847.		1848.		
	Wheat. *Bush.*	Price of flour.	Flour. *Bbls.*	Wheat. *Bush.*	Price of flour.
To June 1st....	318,540	$9.25	366,073	153,754	$5.25
June.—1st week	250,658	8.75	59,888	144,729	5.37½
2d "	240,652	8.81	61,540	151,970	5.62½
3d "	313,204	8.00	102,714	99,993	5.25
4th "	438,004	7.12½	85,764	58,384	5.25
July.—1st "	262,089	7.25	61,303	41,132	5.18¾
2d "	159,991	6.50	75,557	61,475	5.12½
3d "	95,128	6.12½	77,682	45,174	4.87½
4th "	143,618	5.25	62,302	39,453	5.18¾
Aug.—1st "	106,594	6.25	51,032	26,374	5.25
2d "	55,912	6.00	44,836	11,223	5.37½
3d "	69,821	5.87½	52,169	40,534	5.75
4th "	83,517	5.87½	69,249	86,150	6.00
Sept.—1st "	81,300	5.87½	69,038	93,602	6.12
2d "	61,171	5.62½	86,333	86,677	6.06
3d "	76,145	5.62½	123,908	119,138	5.75
4th "	69,335	5.87½	126,773	199,094	5.62½
Oct.—1st "	61,720	5.87½	140,106	163,138	5.37½
2d "	50,286	5.87½	129,681	162,037	5.50
3d "	133,986	6.62	155,837	192,093	5.37½
4th "	153,347	6.68	226,145	228,796	5.25
Nov.—1st "	117,692	6.37½	189,370	289,530	5.20
2d "	159,203	6.25	159,512	162,996	5.37½
3d "	248,256	6.12½	263,991	283,864	5.37½
4th "	407,842	6.37½	228,190	117,259	5.31½
Total...	4,158,010		3,068,572	3,079,262	

The aggregate value of this grain sums up as follows:—

	1844.	1845.	1846.	1847.	1848.
Value of wheat	$1,211,759	$2,005,140	$3,366,141	$7,122,170	$3,677,020
" flour..	9,999,918	13,653,898	15,470,271	27,380,170	17,471,401
Total.....	$11,211,677	$15,659,038	$18,836,412	$34,502,340	$21,148,421
Quantity in bush.	12,373,269	14,019,427	19,423,914	28,882,100	18,771,609

The prices in June, 1847, were high, and the effect had been to send down an enormous quantity of flour and wheat early in the season. With the decline in prices the supplies fell off to a low figure in August and September, and again became important as the English demand revived in the fall. In the last year the reverse was the case; and although prices were at a fair level for flour, they, being comparatively much lower than in the previous year, induced small receipts, and these did not increase in magnitude until the English demand again advanced prices on the seaboard in August and September. The result for the season was as large a delivery as in any former year prior to 1847. It is very evident that a steady price at or about $6 00 per barrel in New York will command almost any supply from the interior. In 1847 the supply was limited only by inadequate means of transportation, freights being at exorbitant rates. Those high freights induced a great increase in ship and canal boat building, and the means of transport for the last year were greater than ever. The steady operations of this stimulus to supply and transport likely to be applied by the large demands of England under the removal of duties, must necessarily afford a supply which can scarcely be limited in extent. The fiscal year of the United States ends June 30, and that of the canal season with November. The value of the exports of breadstuffs and provisions from the United States, as compared with the value of the same articles delivered on the Hudson river from the New York canals, is officially given as follows:—

	1846.	1847.	1848.
Export from United States....	$27,701,125	$68,701,921	$37,472,751
Delivered on the Hudson.....	30,348,790	50,302,275	33,987,012

These figures show to how great an extent a favorable export trade swells the business of the canals, and therefore promotes the general prosperity of the whole agricultural sections. Thus the able reports of the Commissioner of Patents, Edmund Burke, Esq., than whom no gentleman has, in official station, been more actively useful, estimates the wheat crop of 1847, for the Union, at 114,245,500 bushels, and the crop does materially vary from year to year. Now, from the above table, it appears that this crop, at New York prices, was worth $125,685,000, and at the prices of 1847, $171,367,750; an increase of $45,682,750. The actual value of the wheat and wheat flour exported in that year, was $32,183,161; consequently, had that quantity been *given away*, the farmers would have gained $13,499,589 by the enhanced price which the remainder sold for at home, in consequence of taking that quantity out of the market; but a large price was obtained for it abroad, and the value of the present crop, and the general prosperity, will be sustained by the same operation.

All the elements of a season of great prosperity continue to present themselves. Money in England is abundant, food at a fair level, labor abundant, and prices of produce and raw material comparative low; while stocks of goods, as well in England as in the countries she supplies, are by no means large, and the

demand improving under confidence of continued peace and a renewed spirit of enterprise. In the United States the outstanding credits are perhaps as small as ever before, when so great an amount of business is being transacted. Exchanges are in favor of the country, with every prospect of lucrative sales of crops that are somewhat in excess of the few past years in quantity.

The operation of the California gold fever has been to impart a strong spirit of speculation, and to induce enterprise in all commercial countries of a character more bold than any that has marked commercial operations of the past few years.

Commercial affairs generally move in a circle of some ten years, during which they become active; boldness of enterprise increases, running into speculations, the hazardous character of which becomes constantly more apparent, until a general explosion ends in wide-spread insolvency. In the great money centres of the world these symptoms are the first apparent, and the approaching danger the soonest descried. London, in the last thirty years, has four times experienced great financial distress. The close of the war, in 1815, found her financial and commercial affairs in the greatest depression. They gradually revived, until the passage of what was called Peel's bill, or an act to compel the bank to renew specie payments passed in 1819. That event spurred speculation, until the most extensive explosion took place in 1825, involving the failure of great numbers of merchants, among them the celebrated American banker, Samuel Williams, Esq. Recovery followed, and confidence increased, until in 1835–6, a renewed disaster prostrated numberless firms, and among them the three great American bankers, Wildes, Wiggins, and Wilson, followed by all the bankers, and most of the merchants in the United States. Again a revival took place, and enterprise ran into disastrous speculation, ending, in 1847, in a revulsion in England, almost fatal to British credit. Eminent merchants went down by the hundreds, and bills on England became of most doubtful character. The United States were but little affected by that disaster, because, after the revulsion of 1837, the credits with England did not revive, and many of the numerous banks that had failed in the United States were not resuscitated. England is now rapidly recovering from that revulsion. American produce is again selling freely at higher prices, and every element of prosperity is in action. The result is, that in all directions the desire to extend bank credits is manifest. In Illinois, Michigan, and Ohio, paper schemes are being projected. In Pennsylvania, a change in government favors the renewal of those money charters that expire in a short time; and in New York the multiplication of banks under the new law is very rapid. All these are symptoms of growing speculation; but as yet the ground is firm, the national wealth great, and the floating capital of the country never greater than now.

The latest accounts of commercial affairs in every department in Great Britain show increasing activity and great buoyancy. Cotton was advancing slowly but surely, and sales to a large extent were made two weeks prior to the sailing of the Europa. Money continued plentiful, and first class bills were readily discounted as low as 2 per cent. The demand for United States six per cents was increasing at advancing rates. Sales had been made at 107, and the prices of the State stocks were also improving; Pennsylvania 5's were once more at 75 in London.

COMMERCIAL REGULATIONS.

APPRAISAL OF MERCHANDISE.

A TREASURY CIRCULAR TOUCHING THE DIFFERENCE OF PRACTICE EXISTING IN THE SEVERAL PORTS RELATIVE TO THE APPRAISEMENT OF MERCHANDISE.

TREASURY DEPARTMENT, *December* 26, 1848.

DIFFERENCES of practice existing in the several ports relative to the appraisement of merchandise, the following additional instructions are issued for the government of collectors, appraisers, and other officers of the customs, under the 25th section, act of 30th August, 1841, which is in these words:—"That it shall be the duty of all collectors, and other officers of the customs, to execute and carry into effect all instructions of the Secretary of the Treasury, relative to the execution of the revenue laws; and in case any difficulty shall arise as to the true construction or meaning of any part of such revenue laws, the decision of the Secretary of the Treasury shall be conclusive and binding upon all such collectors, and other officers of the customs."

The interests of the country, and of fair and honorable merchants, require that this Department should, by every means in its power, secure not only the revenue against loss, but should maintain such merchants in their business against sales of imported articles at diminished rates, arising from fraud or under-valuation.

To appraisers the government looks for correct valuations of foreign imports. On these officers, more than any other, does the success of the *ad valorem* depend. Their responsibilities are great, and it is expected that their efforts will not be relaxed to check every under-valuation or fraud upon the revenue by whomsoever attempted. In the strict and faithful performance of their duty, at times necessarily disagreeable, their judgment should have great weight with other officers of the revenue service, and especially with the collectors of ports, who should in all cases render them every aid and co-operation in their power.

The intent of the 17th section of the act of 30th August, 1842, in the appointment of merchant appraisers, is evidently to give the merchants an opportunity to appeal from one class of appraisers to another. But it is clear that Congress did not design to relinquish the power in the government to select the merchant appraisers to whom the case might be referred, nor to give the parties appealing any more voice in the selection of such appraisers than of any other government officers. To consult the parties concerned, or allow them a voice in the selection of merchant appraisers, would soon result in permitting the importers to control the appraisement of their own goods, and it is presumed is not permitted at any port.

Merchant appraisers should be particularly instructed that when acting in that capacity they are to be governed by the same rules and regulations as provided by law for the direction of regular appraisers, and are to act upon the principle that the invoice price, or even the price actually paid for an article of merchandise, is by no means a true criterion of the fair market value as prescribed by law. Adopt a contrary principle, and one who is so fortunate as to have a quantity of merchandise given him, would be entitled to receive it free of duty, or at a nominal duty, if purchased at nominal prices, and different rates would often be assessed by appraisers by articles of the same value. The fair market value intended by law is the general or ruling price of the article "in the principal markets of the country from which the same shall have been imported." The Treasury Circular of August 7th, 1848, declares that forced sales in foreign markets at reduced prices, under extraordinary or peculiar circumstances, cannot be taken as the true market value of such goods.

To secure uniformity of action at the different ports the merchant appraisers are to be selected, and their appraisements made in the following manner:—When the appraisers all concur, they may designate five names, or when such concurrence does not exist, the appraisers making the advance, may designate five names of impartial merchants, citizens of the United States, familiar with the value of merchandise, and of the highest credit for integrity and fair dealing, from whom it is recommended that the collector select two as the merchant appraisers, to act under the law, who shall be duly sworn as provided for in the Treasury instructions of July 6th, 1837, omitting in the oath the name of the importer. In the notice to be sent to the appraisers selected as provided in the same instructions, the name of the importer is also to be omit-

ted. The names of the merchant appraisers selected shall also be withheld from the importers until such appraisers assemble for the performance of their duty, as it is important that no *ex parte* statements be permitted, the sole object being to obtain a fair and disinterested examination and valuation of the merchandise. When the collector has fixed the time and place for the merchant appraisers to assemble, he will notify the importer of such time and place, but not the names of the merchant appraisers. Such importer may be present if he desires, and every proper facility should be given him for a thorough examination and ascertainment of value.

To facilitate collectors in settling their accounts, this re-appraisement should take place immediately, or at all events, not be delayed beyond six days from the time the re-appraisement is demanded, unless in the opinion of the merchant appraisers, are extraordinary circumstances requiring an analysis or proof not to be procured within that period. Should such delay extend beyond ten days, a statement of the case by the collector must be forwarded to this Department for its examination. The collector in such cases shall also call on the regular appraisers for a statement, and transmit it to the Department. In all cases where the merchant appraisers assess a lower value than the regular appraisers, the collector will report to the Department a full statement of the case to the recorder here, together with the names of the merchant appraisers. He will also transmit at the same time to this Department, for record here, a statement which he will obtain of the case from the regular appraisers.

In case the merchant appraisers are at variance with each other in their appraisements, and the collector compelled according to law to decide between them, it is expected that he will, without delay, or within five days from the time the re-appraisement is made, decide the question of value, and if he adopts the lowest appraisement made, he will give the reasons for the same in his statement, to be forwarded to this Department for record as directed above.

This Department earnestly invites the co-operation of collectors, appraisers, and other officers of the customs in enforcing correct valuations, and will also be glad to receive information and assistance from all honorable merchants and citizens who desire to protect the revenue, to guard the rights of the honest trader, and to insure the faithful execution of the laws.

The selection of "merchant appraisers" should not be confined exclusively to those connected with foreign imports, but when the requisite knowledge exists, should be extended so as to embrace domestic manufactures, and producers and other citizens acting as merchants, although not dealing in foreign merchandise.

In all cases where the advance by the regular appraiser is short of the penalty, they shall report to this Department the names of the importer, consignee, and consignor, together with the invoice value, and rate advanced.

The law requiring importers to give notice "forthwith" to the collector of a demand for re-appraisement, no such re-appraisement shall take place unless notice is given to the collector in writing of such demand within a period not longer than the day succeeding the notice of such appraisement, which the regular appraisers shall give in all cases as soon as the appraisement is made.

In all cases where the goods are advanced by the regular appraisers 20 per cent more than the invoice, and no re-appraisement is called for, the said appraisers on ascertaining that fact shall report to the collector in writing whether the interests of the government will best be promoted by taking the duty with the penalty, as prescribed by the law, or by taking the duty in kind as authorized by the 18th section of the act of 30th August, 1842, as enforced by the circular of this Department of the 28th November, 1846, and if the appraisers advise the duty to be required in kind, it shall so be taken by the collector. In all such cases, also, when the goods are advanced by the regular appraisers 20 per cent above the invoice value, and a re-appraisement is made by the merchant appraisers, the collector shall make a statement of the duty thus ascertained and fixed by him, including the penalty, if any, to the regular appraisers, who shall thereupon report in writing to the collector whether it is to the interest of the government to take the duty thus ascertained, or require the duty in kind, and if the regular appraisers advise the duty to be required in kind it shall so be taken by the collector.

In all cases where the duty is taken in kind, it is to be thus assessed under the law according to the several schedules, viz:—If the duty be 100 per cent, the whole of the goods shall be taken; if 40 per cent, two-fifths; if 30 per cent, three-tenths; if 25 per cent, one-quarter; if 20 per cent, one-fifth; if 15 per cent, three-twentieths; if 10 per cent, one-tenth; if 5 per cent, one-twentieth; and the goods so taken in kinds are to be sold as provided in Treasury Circular of 28th November, 1846.

These regulations, while protecting the revenue against fraud or under-valuations, will insure correct invoices, inducing a compliance where necessary with the 8th section of the act of 30th July, 1846, and guard the interests of fair and honorable merchants.

Whenever it is found necessary by the regular appraisers or merchant appraisers to guard against fraud or under-valuation, they will carry into effect the following provisions of the 2d section of the act of 16th August, 1846, declaring that "in appraising all goods at any port of the United States heretofore subjected to specific duties, but upon which *ad valorem* duties are imposed by the act of the 30th July last, entitled 'An act reducing the duty on imports and for other purposes,' reference shall be had to values and invoices of similar goods imported during the last fiscal year, under such general and uniform regulations for the prevention of fraud or under-valuation, as shall be prescribed by the Secretary of the Treasury, as enforced by Circular Instructions of the 11th of November, 1846, and 26th of November, 1846." "This last fiscal year," designated in this section, intended by Congress, was "the last fiscal year" preceding the enactment of that law, which was the fiscal year ending the 30th of June, 1846, to which reference is required by the law to value and invoice, of similar goods when necessary to prevent fraud or under-valuation.

Where goods are advanced in price by appraisement, the estimates of the per centage advance, to ascertain whether the same are liable to the penalty as provided for in the 8th section of the act of 30th of July, 1846, must be made only on the articles so raised in price, and such additional duty and penalty must be so levied and collected. In no case will the advance be estimated on the entire invoice, except where the goods are the same in quality, description, and value, and the same advance of price is made on the whole.

R. J. WALKER, *Sec'y of the Treasury.*

REDUCTION OF RUSSIAN SUGAR DUTIES.

The following is a decision on the sugar question, which has just been issued by the Russian government, ordering a reduction in the duty on yellow sugars of 60 copecs per pood, or 5s. 6d. per cwt:—

ST. PETERSBURGH, *January*, 1849.

His Majesty having examined the different opinions in the Committee of Ministers about the admission of white and yellow sugars at a reduced duty, has given the following decision:—

1. Having divided the raw sugar imported into St. Petersburgh from abroad into two categories, to refer to the former the white sugar, and to the second the yellow and brown sorts.

2. White sugars are to be admitted as hitherto, at a duty of ro. 3 80 c. silver per pood, whereas yellows and browns, which will prove similar or inferior to the standard sample, pay only ro. 3 20 c. silver, (by way of a trial for three years.) If they are higher than these samples, however, they must pay the duty of whites.

3. This law is to be in force from the navigation of 1849; and to be likewise applied to the yellow sugars remaining then uncleared in the custom-house of the importation of 1848.

4. The standard sample will be fixed by the United Committee of Manufactures and Commerce, and confirmed by the Minister of Finances, and a set of them kept in each of the two, and in the department of foreign trade. The sample fixed upon in this instance of the different qualities received from abroad is the one of a rather darker tint, to be chosen by the committee, and to be confirmed by the Minister of Finances.

5. An attestation on stamp of three exports, named for that purpose, must accompany each parcel of sugar cleared at the custom-house, as belonging to the second category.

6. If sugars declared as yellows are not admitted as such by the exports, they only pay the duty of white sugars, and are not passive of the penalty of 1½ duty levied for the declaring of higher goods as belonging to a lower description.

7. The exports are appointed for one year. Two are chosen out of the merchants and brokers, and one out of the members of the Moscow Economical Society of the Committee of Sugar Refiners.

8. If there is any difference of opinion amongst the exports they refer in writing to the Exchange Committee, which gives its opinion to the custom-house. If the cus-

tom-house, however, does not agree with the same, the case is referred to the department of foreign trade.

9. The remuneration to the exports is 1 cop. silver per pood on the whole importation of sugar.

FURTHER REDUCTION IN THE TARIFF OF MOROCCO.

DEPARTMENT OF STATE, *Washington, February* 2, 1849.

The following information, under date of 8th December last, has been received from Mr. Hyatt, the United States consul for the empire of Morocco.

EXTRACT:—"In my despatch No. 5, of the 20th September, I advised you of a radical reduction in the *import* duties of this country. I now have the satisfaction of apprizing you that an order has been received from the emperor at the several ports of the empire, reducing the *export* duties on a number of the staple productions of this country, as follows:—

Beeswax from 160 to 120 ounces per quintal.
Hides from 53 to 36 ounces per quintal.
Washed wool from 72 to 54 ounces per quintal.
Halecah wool from 48 to 36 ounces per quintal.

AMAPALA, ON THE PACIFIC, A FREE PORT.

The government of Honduras has issued a decree constituting the port of Amapala, on Tiger Island, (off the coast of Nicaragua, in about latitude 13° N. and longitude 99° W.) a free port, and the circular of the house of Carlos Dardanos & Co. announcing their establishment in said port as commission merchants, recommending the port as a very convenient stopping place, with safe anchorage for steamers and other vessels bound to California. No duties of any sort are levied in the port of Amapala.

NAUTICAL INTELLIGENCE.

INFORMATION FOR NAVIGATORS.

THE following letter, from M. F. MAURY, Lieutenant United States Navy, at the head of the National Observatory, Washington, contains some new and useful suggestions from the "bold and original mind" of that distinguished officer, that are worthy of the attention of ship-masters and navigators generally. It seems that Lieut. Maury received letters from some two hundred gentlemen of New Bedford and New London, who are either owners or masters of vessels engaged in the whale fishery, expressive of their interest in his undertaking, under the auspices of the general government of the United States, to map the winds and currents of the ocean, and offering to collect the necessary materials therefor. Believing the letter to contain information of great interest to navigators generally, we publish it entire.

NATIONAL OBSERVATORY, *Washington, January* 15, 1849.

To the Owners and Masters of the New Bedford and New London whale ships:

I received the letters which the gentlemen of New Bedford and New London—all "owners or masters of vessels employed in the whale fisheries"—have addressed to me in relation to the "wind and current charts."

I am gratified at the hearty interest, gentlemen, which you take in this work, and am more than pleased by your generous offer to co-operate with ships and men in conducting, under my direction, not only observations in all parts of the ocean with regard to winds and currents, and in the investigation of other phenomena bearing upon navigation, but in collecting also such information as I may desire with regard to the habits of the whale.

These letters afford practical proof, in addition to the evidence we are daily receiving, that our labors here for the benefit of navigators have at last *told*, and that the

object of them is now understood, and properly appreciated by those for whose benefit they are especially intended.

I have felt all along that this sooner or later would be the case; for I was sure that I had not mistaken the character of American merchants, ship-owners, and navigators. I have met with them in all parts of the world; and wherever I have been, I have found that the American sea captain, above the shipmasters of all other countries, is known for his enterprise and intelligence. Never, since Columbus crossed the Atlantic, has the commercial marine of any nation been conducted by such men. America excels the world not more in her merchant ships than in her merchant captains; and therefore I expected more from them than from all the world besides.

For years I have been soliciting the co-operation of seafaring people in procuring materials for this undertaking, and for years I solicited in vain. But I knew it was because the object I had in view was not presented in the right way. I must first put my shoulder to the wheel, and then cry help; and then I knew that sailors would help me with a will. Accordingly I made a beginning. I consulted such old log-books of our men-of-war as I could lay hands on, put down the results on a chart; and, as incomplete as that chart is, published it to the world.

Immediately the scales were turned; it was seen then that it was really practicable to make the experience of all navigators available to each one, and the thing was understood at once. Old sea captains unlocked their sea chests, took out their musty sea journals, and placed them at my disposal. Owners and merchants came forward with offers of assistance; and now, instead of my having to solicit co-operation from them, they are soliciting from me the privilege of co-operating with us.

This is as it should be. It has not been a year since the first sheets of this chart were published, and I estimate that not less than one thousand American ships and navigators have been supplied with them, and are now engaged in all parts of the ocean, in making observations and collecting materials for the completion of the work.

The history of the world does not afford an example of such another corps of observers, without pay or the promise of reward. A fleet of ships far exceeding in number that which any navy in the world can put to sea, have been enlisted for this work, and are actually engaged in conducting the most extensive system of physical researches that has ever engaged the attention of philosophers. Solomon's exchequer would not be sufficient to support the multitudes of ships and men that, before the end of another year, will probably be engaged in this work; and yet the laborers in this field expect no other reward than that which good and wise men find in the mere act of helping to do good.

We have been reproached by other nations as being backward in the pursuit of science, and deficient in our contributions to the stores of knowledge. Without declaring this charge to be wholly unfounded, or admitting it to be entirely just, the shipping merchants and seamen of America can never hereafter be implicated in it. To my mind, the age in which we live, fruitful as it is, does not present a more sublime moral spectacle than that which is here exhibited. These charts, because they promise to be useful to navigation, have called out a fleet of ships manned by thousands of American seamen, all acting harmoniously together in the investigation of some of the most important and apparently complex phenomena of nature. By means of these charts alone, the mariner has been induced to conduct in every sea, and according to prescribed rules, a series of observations which aim at a more perfect development of the laws of nature, at the advancement of science, the benefit of commerce, and the improvement of navigation.

Several thousand ships engaged hourly, day and night, upon the wide ocean, in recording observations in meteorology and on the phenomena of the great deep, to be sent here for comparison and discussion! What may not be the value of the results? People may talk of merchant princes; but here is something more than princely, undertaken with the spirit of the true Yankee sailor, and conducted in a manner that

> "Is as rich with praise as is the ooze and bottom of the sea."

The materials thus sought and collected are those which constitute the experience of the navigator with regard to the winds, the currents, and all that relates to the safe and speedy navigation of the ocean.

Received here, they are placed in the hands of assistants, an able corps of navy officers who have a fellow feeling in the work. They know how to sympathize with the sailor, and therefore fully appreciate the importance and value of the results.

The log of each ship is carefully examined and compared with all the rest; the

winds, the currents, the temperature of water, and all the phenomena observed, are spread out on a chart in such a manner as to show at a glance the result of the whole combined.

As it may be supposed, many important discoveries, many beautiful illustrations of natural laws, and many interesting facts and principles with regard to the navigation of the seas, are elicited as the work progresses. I may be excused for alluding to some of them:—

1. By examining and comparing together many thousand sea journals, a new and better route has been discovered by which the passage from the ports of the United States to the equator—the common highway of all vessels bound to China and the East Indies, to the ports of South America and the islands of the Pacific ocean—is shortened a week or ten days.

2. In the midst of the north Atlantic, a regular monsoon has been discovered, and its limits are already defined with more precision than those of the Gulf stream have even been.

3. The north-east trade winds form an atmospherical band in the north Atlantic, with surprising regularity of breadth. Were this band opaque, or were it visible to an astronomer in the moon, it would appear to him not unlike the belts of Jupiter do to us; but upon a scale greatly enlarged. Could it be seen by an observer in the moon, he could mark our seasons by it; so regularly do the materials already furnished show its vibrations up and down in latitude to be according to our months and seasons.

This band of N. E. trades is not, as has been supposed, parallel to the equator. It is parallel to the ecliptic. The manner in which these conclusions are arrived at admits of no more doubt as to these facts, than there is as to the existence of the trade winds themselves.

When these thousand ships return with their observations, made simultaneously in all parts of the world, who can anticipate the value or the nature of the results to be obtained? When it is blowing a norther in the Gulf, or a tornado in the West Indies, for instance, these observations will enable us to see what it was doing on the other side, across the Isthmus of Tehuantepec.

I am beginning to receive returns from this fleet. Our system of obervations requires the water thermometer to be used; and in consequence it is now beginning, for the first time, to be *generally* used in the merchant service. From the returns already received, this instrument indicates a fork in the Gulf Stream, on the banks of Newfoundland. It also indicates the existence of a cold current setting westwardly between two warm ones running towards the east; and it indicates, further, the probability of the Grand Banks extending nearly to the coast of Europe. This is all the thermometer can do in this respect; it can only indicate.

Suppose—and the supposition is probably not far wrong—that the rate of this cold current and of each of those warm ones is one mile the hour; vessels do not know where the dividing line between them is. They lay in the track to Europe; and if we suppose the average time for which a vessel, on her passage to and fro, is exposed to them to be ten days, we shall see that each vessel may be swept back or carried forward by the current to which she is exposed during that time, 240 miles; thus making a difference of 480 miles in her progress during only ten days of her passage, according as she may have the luck to strike the adverse or favorable current. Would it not be a great advantage to every vessel in the European trade, if she knew exactly where to find these currents, and where to go to avoid the adverse one, and where to take the favorable one?

To ascertain their limits is more than individual enterprise can do,—it would require a vessel to be sent there for the purpose, and to employ several months in the examination; therefore this would seem to be the business of government.

Another subject which demands the attention of government is an examination as to the existence and true position of dangerous rocks, reefs, and shoals, which are said to lie in certain frequented parts of the ocean. I have now before me, in an admirably kept log by Captain Walsh, of the "Silas Richards," on her late voyage from Baltimore to Rotterdam and back, an account of such a danger. He is one of the *thousand observers*, and this is one of the many interesting points that they are bringing to light. In his remarks of September 5th, 1848, latitude 41° 47′ north, longitude 59° 34′ west, he states: "I firmly believe in the existence of a rock just awash in rough weather, about the size of the hull of a ship of 500 tons. I have not myself seen it, so as to be *certain* that I have, though I think so. But a person in whom I have en-

tire confidence assures me that he plainly had, and that he passed it so near that the kelp growing on the rock he could have caught with a boat-hook had he had one in reach, and nerve at such a time to have used it. It was described by his crew, who at 3 P. M. were double-reefing the ship's (the Forum of Boston) fore-topsail. The helm was put up just in time to clear it. *I think I saw it, and I am quite certain that there are soundings about there.*"

It is exactly in the track to and from Europe. It is just below the water's edge, and therefore the more dangerous; for it cannot be seen until you get on it, and it is sure to knock a hole into and sink any vessel that touches it. Who can tell but that the President steamship, and many other vessels that have gone down upon that route, were lost upon this rock? One of the small vessels of the navy detached for that purpose would in a few weeks settle the question as to the set of those currents, the extension of the Grand Banks, and the existence and place of this rock.

I have every reason to believe in the discovery of a westerly current in the Gulf of Mexico, which, if it be proved certainly to exist, and then have its course and limits so marked by a public cruiser that vessels may know where to find it, will shorten the average sailing passage from Havana to Pensacola, Mobile, New Orleans, and Texas, at least one-third.

As for your favorite subject, the whales, I am happy to inform you that Lieutenant Herndon has them already in hand; and though his investigations have not yet gone far enough to authorize conclusions, yet there is no doubt in my mind that if you will send us well kept journals, and *enough* of them, we shall be able to construct a chart which will show at a glance in what part of the ocean the whales have been found in quantity in the different months; and we shall also show the parts that are never frequented by them.

Take as an example: he has examined the logs of vessels which, in the years 1833, '34, '35, '39, '40, '44, '45, and '46, cruised 429 days in the square from 5° N. to the equator, between the meridians of 80° and 85° W. and whales were found there in quantities, in every month except January, February, and March. In the square from 5° N. to the equator, between the meridians of 90° and 95° W., he has in like manner examined the logs of vessels which cruised there in search of whales 190 days in the years 1832, '33, '34, '35, '36, '39, '40, '41, '43, '45, and '46. Some one of these vessels was there in every month of the year, except December; and they saw only a few straggling whales in February and September. It remains to be seen whether this animal revisits annually the same part of the ocean. So far it seems probable that he does not; though it does not appear that he remains in any one part all the year round. What, then, is to regulate his visits from place to place? Probably the abundance of food; therefore, this is a subject to which I would invite particular attention. What is the food of the whale? What localities and what temperature of the water are most favorable to its production? How long does it take to mature? Satisfactory replies to these interrogatories would throw much light upon the subject.

The observations in addition required for this work are the latitude and longitude of the ship, the temperature of the air and water, and the set of the current *daily;* the variation of the compass as often as it is *observed,* and the prevailing character of the wind for every eight hours of the twenty-four, stating always the *point* of the compass whence it blows. Besides this, the mention of whales, large quantities of sea-fowl, drift, tide-rips, discolorations of the water, fogs, rain, thunder and lightning, whenever they occur or are seen, with any other remarks that may be deemed of general interest, should be entered in the journal kept for this office. Care must be taken to note in it, also, the kind of whale, whether right or sperm.

Forms for this journal, with a copy of the wind and current charts, may be had, on application, of Professor William Mitchell, of Nantucket; Captain Daniel McKenzie, New Bedford; Captain R. B. Forbes, Boston; W. L. Havens, Sag Harbor; George Manning, E. & G. W. Blunt, or Eggert and Son, New York; Wm. H. O. Riggs, Philadelphia; Captain Goldsborough, U. S. Navy, Baltimore; or at this office.

By application at any of the above named sources, any navigator will receive a copy of the charts and a copy of the new sailing directions without charge or condition, except that he keep and return to this office an abstract of his journal according to the form prescribed. Respectfully, &c. M. F. MAURY, *Lieut. U. S. N.*

DARTMOUTH HARBOR LIGHT.

It has been determined by the Town Council of Dartmouth, that the Harbor Light shall cease to burn on the 31st day of March, 1849.

ADDITIONAL HARBOR LIGHTS AT OSTEND.

The Belgian government has given notice, that at an early period, a fixed light will be established on the extremities of each of the two piers, or jetties, which form the entrance of the port of Ostend. The light on the western pier will be green; twenty-three feet high, and visible at the distance of four or five miles. The light on the eastern pier will be red; of the same elevation as the former. The green light will be shown at sunset, and extinguished at sunrise; but the red light will not be lighted till the flood tide has thrown in at least nine feet of water between the pier-heads, and will be extinguished when the present tide lights are lighted. As soon as the present tide lights are extinguished, during the ebb, the red light will be again shown, and continued till the falling tide has lowered the water between the jetty heads to nine feet, when it will be extinguished. In bad weather, when there can be no communication with the pier-heads, these arrangements must of course be interrupted; and all vessels are cautioned not to attempt the harbor of Ostend when the tide lights are not displayed.

BAY OF FUNDY—BLACK ROCK AND APPLE RIVER LIGHTS.

The Commissioners of Light-houses in Nova Scotia have given notice that two New Lights are now established in the Bay of Fundy, namely: one at Black Rock Point, on the south shore of the Mines Channel, and the other at Hetty Point, (called also Cape Capstan,) on the north side of the entrance of Apple River, on the southern shore of Cumberland Bay.

Black Rock Fixed Light.—The Light-house, which is a square building and painted white, stands on Black Rock Point, about the latitude of 45° 11′ north, and three-quarters of a mile to the westward of Kennedy's breakwater, and two miles and a half to the eastward of Giran's breakwater. Small vessels resort to both those places, and the Light will therefore be a useful guide to those vessels bound to them, as well as to Spencer Island Anchorage, or into the basin of Mines. The Light is elevated 45 feet above the level of high water. Spring tides rise and fall there 50 feet.

Apple River Lights.—Two Fixed Horizontal Lights.—The Light-house stands on Hetty Point, on the northern side of the Apple River, in Cumberland Bay, and about three leagues to the eastward of Cape Chignecto, in about 45° 26′ north latitude. It is a square white building, showing to vessels, approaching it from the westward, two Fixed Lights, placed horizontally. These Lights are 40 feet above the level of the sea at high water. The rise and fall of spring tides there is 55 feet.

WRECK IN THE SHIPWAY.

A green buoy, marked with the word "Wreck," has been placed 15 fathoms to the N. E. of a vessel sunk in the Fairway of vessels passing through the Shipway Channel. The buoy lies in seven fathoms at low water spring tides, with the following compass bearings, namely:—

Buoy of the Rough.....West.
S. W. Shipwash Buoy.....S. S. E.
Baudsey Sea Mark.....N. by W. ½ W.

WRECK ON THE WARP.

A green buoy, marked with the word "Wreck," has been placed 15 fathoms to the westward of a schooner sunk upon the Warp, in six fathoms low water spring tides. The buoy lies with the following mark and compass bearings, namely:—

Prittlewell Church, its apparent width open westward of the first house west of Shoebury Preventive Station.....N. W. ½ W.
Cant Buoy.....S. by W.
Nore Light Vessel.....W. by N.
West Oaze Buoy.....S. E. by E.

JOURNAL OF MINING AND MANUFACTURES.

MINERAL WEALTH OF THE SOUTH-WESTERN TERRITORY OF THE U. STATES.

To Freeman Hunt, Esq., *Editor of the Merchants' Magazine, etc.*

The mineral wealth of the newly acquired territories of the United States, offers to the reflecting man much material for inquiry. The great opening of a new hemisphere, which from all appearances and accounts, bids fair to revolutionise the whole civilized world; the immense resources of the most valuable metals, which are about beginning to develop themselves on the most extensive area ever known before, and the authentic information so far obtained about the vast and inexhaustible supply of that precious metal, gold, must naturally excite great interest in the American citizen, independent of his patriotism or joyful feeling that this present era will form a new epoch in political economy. It is well known that Mexico possesses valuable silver mines, which have produced for many years $22,000,000 annually, from the East coast; until lately the quantity has been reduced to $12,000,000 per annum; that they have only received about half a million of gold from these mines. Whether the Mexicans did not search for gold, or whether there was another reason for not opening these gold mines, is a matter of inquiry. In the district of Cosalo, in Mexico, there is said to be the richest gold mine in the world, belonging to Signor Triarte, who refused to work it to any degree of productiveness, because he could not dispose of the immense revenue it would yield, amounting to several millions of dollars. He has now far more than he wants, and says that his money is safest under ground; at all events it is in that country, and extending to New Mexico, where very extensive gold mines are situated, about forty miles south of Santa Fe, and where the streets of the village are paved with gold.* In California, at San Fernando, near San Pedro, gold has been dug out for several years. No certain calculation can as yet be made in regard to the quantity of gold to be obtained from California; but judging from the great emigration from this and other countries, from five to ten millions of dollars worth may be computed to be gathered within the next twelve months.

It is also fully ascertained that quicksilver, as well as gold, abounds. A number of localities have been discovered where whole mountain ranges, near Pueblo de San Jose, and near the town of Sonoma, about 60 miles from the Bay of San Francisco, consist of the cinnabar, which, according to analysis, yields from 15 to 33 per cent quicksilver; copper is found in considerable quantities likewise, from Santa Fe to San Francisco; lead is abundant on the north side of the entrance of the Bay of San Francisco; sulphur, asphaltum, and coal, have likewise been found on many places near the Bay; several silver mines have been in successful operation for some time on the Island of Catalina, and not far from Monterey.

It is stated by the geologist of the United States Exploring Expedition, that the rocks along the ridge of the Sierra Nevada, and near the Sacramento river, are of a talcose slate, and much resembling our gold-bearing rocks of the South. There is no doubt that the volcanic action of the east coast of Mexico must have been contemporaneous with that of the west coast, for we find that the productions correspond together, and that, after the great volcanic revolution of so large an extent of country, these high snowy mountains have been shaken and carried away down to the Sacramento and San Joachim valleys, a vast mass of rocks. During this revolution, the

* In Lieut. Abert's Report of the examination of New Mexico, it is stated "that from the portal of the house of Mr. Richard Dallum, the Alcalde of New Mexico, he could see holes dug in the sides of a hill of sand, which were the vestiges of the gold diggers. On some places deep wells had been sunk, in search of the precious metal. He saw many miserable looking wretches, clothed in rags, with an old piece of iron to dig the earth, and some gourds, or horns of the mountain goat, to wash the sand. They sit all day at work, and at evening repair to some tienda, or store, where they exchange their gold for bread and meat."

At Puerto, a village of two hundred and fifty inhabitants, several mines are in operation by a Mr. Richard Campbell, who owns a rich copper mine, as also a gold mine. The same gentleman informed Lieut. Abert that he got from his wells one piece of gold worth $700, and another time a lump worth $900. Nearly all the people are constantly at the wells, and drawing up bags of loose sand by means of windlasses. Around little pools, men, women, and children were grouped, intently poring over these bags, and washing the earth in wooden platters or goat horns.

Among the minerals brought from New Mexico by Lieut. Abert were obsidian, rock salt, white compact gypsum, silenite, gold specimens, copper specimens, quartz with dentritic infiltrations of oxide of iron, granite, mica slate, black slate, trap rock, a white clay, &c.

Gulf of California has been formed, as well as the whole peninsula, and rivers, and lakes; the precious metals, particularly the gold, has been triturated during the long rolling from the original beds, of many hundred miles distance, into fine dust and spangles, and there is no doubt but that the whole space of the Sierra Nevada, over the Snowy Mountains, and great Sandy Desert, to the Rocky Mountains, will at some future day develop vast treasures of these valuable minerals; and that the supply of both gold and quicksilver, of which there are but mere indications at present, will prove inexhaustible.

Considering the distance from Santa Fe to be about 1,000 miles in a straight line to San Diego, and about 1,500 miles to San Francisco, over a part of the Rocky Mountains, the great Sandy Desert, and thence to the Snowy Mountains, and the rocks, minerals, and metals, according to the various statements of travellers, sufficiently identical, it is quite reasonable to infer that the deposition of all these valuable treasures must have been coeval, and that future generations will have ample room for explorations.

The public journals are discussing the question, What influence this great increase of gold will exercise in commerce, and whether the great surplus of this precious metal will affect the monetary affairs of the world?

There is no doubt that the precious metals must depreciate in their intrinsic value, and the standard of the fineness of the currency in the various countries will have to be raised, say from 21 to 23 carats fine, or about 950; but what is more important for the public benefit, will be the raising of the standard of gold for ornaments. At the present day, ornaments purporting to be gold, are but ¼ to ½ gold, the rest copper, so that the ignorant purchaser of jewelry may be imposed upon. In the United States, one manufacturer sells one kind, and another another, of various grades of fineness, which will only be remedied by following the example of Sweden, Austria, and Prussia, where the manufacturers are obliged to have the government stamp put on every article of their manufacture. The consequence will be, that a larger quantity of gold will be consumed in ornaments and jewelry, such as watch cases, watch chains, breastpins, ear rings, bracelets, pencils, &c. It will also lead to consuming the gold for many more articles of luxury, which would otherwise have been made by mere plating over baser metal. Another improvement will be to introduce the gold dollar as a part of the United States currency, which shall be equally fine with the eagle and half eagle.

For the present, however, no calculation can be made what the emergency of the case of any enormous surplus of gold will produce; nor had ever such a case occurred in the history of the world, although the discovery of large amounts of the precious metals in Peru and Siberia, during the last thirty years, have brought similar suggestions to the mind of the political economist.

Suppose I put down California should produce this year instead of $10,000,000	$20,000,000	France	26,000,000
		Indies	14,000,000
The U. States, eastern coast.	5,000,000	Sweden	700,000
Mexico	12,000,000	Denmark	150,000
Colombia	2,000,000	Saxony	350,000
Peru	3,000,000	Prussia	2,000,000
Chili	500,000	Austria	6,000,000
Bolivia	1,500,000	Spain	500,000
Brazil	100,000	Russia	20,000,000
England	8,000,000	Total	$121,800,000

Compare this amount with the population of the world to be at the present day 350,000,000; this would only give 28 cents to each head.

There is no fear of gold getting too plenty, so as to make it less valuable in currency or in luxury; but should platina, quicksilver, diamonds, and other precious stones, be found in the same ratio as gold, and there is no reason to doubt their existence, then it will become a question of importance, whether an abundance of these substances will not affect the appreciation of the value of other luxuries.

Yours, truly, L. FEUCHTWANGER.

THE CUMBERLAND SEMI-BITUMINOUS COAL REGION.

The completion of the Chesapeake and Ohio Canal to the town of Cumberland, in Maryland, which (as we learn from a reliable source) will be effected by the first of August next, suggests important considerations touching two of the great public inter-

ests of the United States, the communication between the Atlantic seaboard and the great West, and the coal business of Maryland and Virginia; it also brings to mind, we may add, some interesting reminiscences of the past. We do not think it exaggeration to say that this event will probably open a new era in the application of coal to many mechanical and perhaps domestic purposes also, and consequently in the coal business of the country.

Before speaking of the interesting *semi-bituminous* coal-field which is now for the first time to be made fully accessible from the Atlantic seaboard, and noticing the important inquiry which has lately been attracting attention as to the sources of the future supply of fuel to feed the fires which are to create the great motive power, steam, in years to come, the great motive power of manufactures, on the one hand, and of locomotion on the other, we must stop for a moment to make a note of an interesting reminiscence connected with the work whose early completion is announced.

This canal was projected more than sixty years ago. The plan originated with Washington. Almost the first great subject that busied his ever active mind, after the close of the revolution, was internal improvements, and, in particular, a navigable communication between the seaboard and the valley of the West. Nor did he fail to perceive the value of the coal region which would thus be approached. His first message to Congress, the first message to the first Congress, recommended the construction of a work of this kind to unite the waters of the Ohio with the seaboard.

The Chesapeake and Ohio Canal was not begun until 1828. Since that time the Erie Canal, the Delaware and Hudson, Morris, and Delaware and Raritan Canals have been constructed. The great anthracite coal trade of Pennsylvania, which now amounts to millions of tons annually, has almost entirely sprung up since that year. Pennsylvania and neighboring States have expended over $40,000,000 since 1821 in the construction of railroads and canals for the purposes of this trade, almost exclusively. Had the same enterprising spirit animated the management of the Chesapeake Canal, its completion would have been announced long before 1849, and as brilliant results might, perhaps, have been before now realized as those which have attended the enterprise of Pennsylvania, whose coal trade has grown from 34,893 tons in 1829, to upwards of 3,200,000 tons in 1848.

Meanwhile railroad enterprise has overtaken the canal, and the Baltimore and Ohio Company have completed their track in part along the same route with the canal, as far as Cumberland; and they are preparing to push forward the work beyond that point, having selected a route along the north branch of the Potomac, on the Maryland side. It will be completed, we are informed, within six months, as far as the town of Westernport, which is situated on the north branch of the Potomac, about twenty-two miles beyond Cumberland. A dam and feeder, already built by the Canal Company, furnishes a slack-water navigation on the Potomac for about six miles beyond Cumberland, and the river is capable of being rendered navigable up to and beyond Westernport at a comparatively small expense. This, the Company have, we learn, already taken active measures to effect at an early day, having directed their chief engineer to make an immediate survey of the river. During five months in the year, in time of high water, coal boats can run in a few hours from the Savage river, which enters the Potomac three miles above Westernport, to Cumberland.

Westernport is in the centre of the coal region. Thus, therefore, at about the same time two great lines of communication with tide-water will be completed, the one terminating at Baltimore, the other at Alexandria and Georgetown. Both the railroad and the canal must look to the coal region for a large proportion of their business; and the proprietors of the coal field, without having incurred any expense in the construction of these necessary lines of communication, will reap all the advantages of a competition between them. The effects of this competition have already begun to show themselves. Within a few days past the Canal Company have, by resolution, lowered their rates of toll to 76 cents per ton, from Cumberland to Alexandria.

The Cumberland coal basin lies in the trough, or valley, formed by the two ridges into which the Alleghany range forks as it advances in a north-easterly direction towards Northern Virginia, and, crossing the western part of Maryland, enters Pennsylvania. The valley is about thirty-five miles long and ten wide. Its southern half is *drained* by the north branch of the Potomac, which, after flowing half way up the valley and receiving the waters of numerous streams, the chief of which are Abram's Creek, Spring River and Deep Run, in Virginia, and Three Fork River, Savage River, and George's Creek, in Maryland, suddenly turns to the south-east and cuts a way for itself out of the valley, (and, as we may add, cuts a natural canal for the miner *into* the

valley,) through the east ridge of the range. A similar natural channel and passage is afforded by the Savage, which, in like manner, makes its way through a pass in the West, or Back Bone ridge, cutting through the mountains, as it were, to their roots, in a manner which the piety of the capitalist is tempted to recognize as quite providential.

The country between the ridges is a succession of hills and ravines. At the bottom of the ravines flow the streams, some of which we have mentioned, and which, flowing into the Potomac, drain the whole region. Cropping out on the sides of these hills, and in successive layers, from the bottom to the top, are found beds of coal, iron ore, sandstone, and limestone. The coal beds are from two to seventeen feet in thickness. In order to get at these mineral treasures, there is no necessity of shafts sunk deep into the earth, nor will machinery be required, to pump water from the mines. The region is already *drained to hand*. The coal and iron can be reached by lateral cuts into the hill sides.

The coal field extends through the whole length of the valley, and is, therefore, about thirty-four miles long. Its average breadth is four miles; it contains, therefore, about 140 square miles, or 9,000 acres. The capacity of the basin has been variously estimated. One estimate makes the yield of a portion of the field at fifty thousand tons the acre, of *available coals*, lying above the bed of the Potomac.* "The resources of this region," says Mr. R. C. Taylor, in his Statistics of Coal, "are demonstrated to be of a very productive character; surpassed, probably, by none on the eastern margin of the Alleghany mountain range."

The northern half of the field is owned principally by several mining companies. In the southern half, for eight miles along the Potomac, on the Virginia side, the land belongs to the Phœnix Mining and Manufacturing Company, which has been incorporated by the Legislatures of both Virginia and Maryland. Through this tract flow Stoney Creek, Abram's Creek, and Deep Run. On the Maryland side, the Company own exceedingly valuable tracts at Wilson's Mill and Westernport, at the mouth of George's Creek. In all, their lands in the southern half of the Cumberland coal field, lying on the Potomac and its branches, are twenty thousand acres in extent. The coal is probably of equally good quality throughout the entire region; but as the seams run south from Frostberg, and to the centre of the coal-field, they become thicker and richer.

It is the peculiar character of the coal of the Cumberland Region, which gives it, at this juncture, its chief interest. At this juncture, we say, for we seem to be approaching a turning point in the history of steam power; a stage, when the inquiry as to the future supply of fuel, vegetable and mineral, to supply the fires of the steam furnace, which burn higher every day, and the consideration of the comparative value and capacity of the different varieties of coal become matters of no little moment. The value of a large and easily accessible supply of semi-bituminous coal becomes evident from a few obvious considerations.

It is but about twenty years since steam power began to be generally and extensively applied to purposes of locomotion. Now, of the two great uses of the mighty agent, it is difficult to say which is most general and extensive, its use for purposes of manufacture, or of locomotion. Railroads, which twenty years ago were not, now net all Europe and America. It is not more than ten years ago, that ocean steam navigation was shown to be entirely practicable. Now the European marines count their ocean steamers by hundreds. Within three years five or six steam navigation companies have been established in the city of New York, which own already some twenty-five steamships, including several on the stocks. It is some years since it was calculated that steam had added a force to the industrial power of the world, equal to that of sixty millions of men. But we must remember that, while it is steam which produces this wonderful power, it is fire that produces steam. Is there fuel, are there wood and coal enough? If there is need of economy, in view of the consumption by this mighty flame, must not regard be had to the different varieties of coal, and that the proper kind be applied to each of the uses for which it is now in requisition, for domestic purposes, for forges and melting furnaces, for the stationary and for the locomotive steam-engine? Already the consumption of wood on railroad locomotives is causing, even in America, a scarcity and rise of prices near the seaboard. Are even American forests to disappear before the fire? It is a striking fact, that on the Reading Railroad, leading from the anthracite coal district of Pennsylvania to the city of Philadelphia, and used almost solely for carrying that coal to market, some $400,000 an-

* Report of Professor Ch. U. Shepard, of South Carolina.

nually are spent for wood, for the locomotives! This, if not exactly carrying coals to New Castle, looks like forgetting to burn the coals that are there. But the fact is, experiment has shown the difficulty and the disadvantage of using anthracite coal on railroad engines. The reasons will presently appear.

For all locomotive purposes, whether on land or water, the fuel that is capable of generating most steam, within the shortest time, at the shortest notice, and at the same time occupies least space, in bulk, is obviously the most desirable. Such, it is well known, is the peculiar character, the distinguishing excellence of the semi-bituminous coals. In England, this opinion is well established; so much so, that the Welsh semi-bituminous are called, by way of distinction, *steam* coals, and supplies of them are sent to the most distant naval stations in Africa and Asia, for the omnipresent British navy.

The Cumberland and Welsh semi-bituminous coals prove, upon analysis, very similar in the proportions of carbon and volatile, or bituminous and gaseous matter. In his valuable statistics, Mr. Taylor gives a classification and analysis of some thousand varieties of coals, of the three great classes, bituminous, semi-bituminous, and anthracite, into which they are divided. Of the Welsh coals there are contained in those of Dowlais, 79.5 carbon, to 17.5 bituminous matter; Merthyr, 78.4 to 18.8; Pen-y-daran, 86 to 12; Aberdare, 87 to 11.5; and Pembrey, 80.

Of the Cumberland, specimens from Savage river contained 77 carbon to 16 bituminous matter, and 78 to 19; Maryland Company's, 82.01 to 15; George's Creek, 70.75 to 16.03; Stoney river, 83.36 to 13.28; Abram's Creek, 72.40 to 15.20.

The excellence of the Cumberland coal is attested by many men of science. Mr. David Mushet, of Gloucestershire, a few years ago pronounced some specimens from near the town of Cumberland, "the very best bituminous coal he had ever met with." Dr. Ure says that it "resembles closely, in external appearance, the outcross coals of the Monkland and Calder district, or field, near Glasgow, so celebrated for making good iron."

"Professors Silliman, Shepard, and others, have shown," says Mr. Taylor, (Statistics, p. 68,) "that the main, or ten feet Frostberg seam, which, having been longer worked, has conferred a character on the Cumberland coal, contains but 13.34 per cent of bitumen, besides 1.66 of water. Such an amount as 82 per cent of carbon, which these analyses show it to possess, while at the same time it retains enough of the properties of flaming coal, carries its own best commendation, and places it very high, if not the highest, in the scale of American coals."

Being of an intermediate kind between the anthracite and full bituminous, and having more carbon than the latter, and more bitumen than the former, the semi-bituminous possesses a high degree of the good qualities of both, although not so high of either of those of which the others have an excess. It contains those elements in more equal proportions. In anthracite, the average of carbon is from 90 to 95 parts out of 100; in bituminous, 45 to 55 out of 100. For extremely hot fires, like that of charcoal, the anthracite is of course the best. For a fast open-burning fire of little intensity, the English bituminous coals are best. But used for the purposes of the locomotive engine, propelling either ship or car, the anthracite, although possessing ample evaporative powers, is too difficult to kindle for the dispatch and punctuality of travel, and it requires blowers, and a strong draft to keep it burning; the consequence of which is that a large proportion of heat (estimated at 20 per cent) is lost, so that less steam is obtained than from coals of intrinsically less evaporative power. At the same time, the incomplete combustion of this coal, leading to frequent and inconvenient accumulations, which choke the furnaces, and its tendency to clinker, are almost fatal objections to its use, alike on railways and steamers.

On the other hand, the common English bituminous coal, which has heretofore been much used in steamships and are very good, has not a few objectionable qualities. Even the immense volumes of smoke it emits in burning, is a point not to be overlooked, in connection with its use for naval purposes. It is said the French steamers at Calais can be seen at Dover the moment they begin to fire up, and can be watched and followed by their clouds of smoke until night. The smoke of naval battles, in future, will become more thick and blinding than ever, if only the fat bituminous coals are used. The objection would be less, if, instead of only exposing one's movements to the enemy, it blinded foe as well as friend.

The bituminous coal has the advantage of kindling quickly. It burns fast. But its heating power is less than that of the semi-bituminous, of course much less than that of anthracite. A larger bulk of this coal is therefore necessary for the same amount

of evaporative power. The tendency of this coal to run together or cake as it burns, is also not to be overlooked. And instances have occurred of bituminous coal igniting by spontaneous combustion on board of ships. This has been the case with vessels on their way to the East Indies, and a few years ago an English government steamer was burnt in the Mediterranean by the spontaneous combustion of its coal.

In short, for a combination of the highest evaporative power, with the least bulk, facility of ignition, and completeness of combustion, and for the absence of any tendency to clog the furnace, to clinker or to cake, semi-bituminous coals, for purposes of steam locomotion, must have the preference over the other kinds.

We are stating the results of experiments, not theories. Mr. Taylor mentions experiments with the Welsh steam coals, made at the naval dock-yard at Woolwich, England, the results of which proved their superior evaporative power. (Statistics, p. 364.) He also mentions the trial of the comparative merits of Liverpool and Cumberland coals, made at sea, 22d October, 1839, on board of the United States steamer Fulton, with similar results.

But by far the most elaborate experiments on this subject, are those conducted under the direction of the naval department at Washington, by Professor Walter R. Johnson, whose elaborate Report of 600 pages lies before us.* The results are given in numerous detailed tabular statements. And at the end are the tables, in which are exhibited the character and efficiency of the several coals. The examination embraced over forty specimens, including various foreign kinds. From the first of these we take the following figures, in which the coals are compared with reference to bulk and space required for stowage, proportion of carbon and volatile matter and evaporative power.

OFFICIAL ANALYSIS OF ANTHRACITE AND BITUMINOUS COAL.

Anthracites.	Weight per cubic foot.	Cubic feet per ton.	Fixed carbon.	Bitumen or volatile matter.	Earthy matter.	Evap'ive power.
Peach mountain.....	53.78	41.64	89.00	2.96	6.13	945
Lehigh.....	55,32	40.50	89.15	5.25	5.56	835
Forrest improvement.....	53.66	41.75	90.75	3.07	4.41	940
Lackawanna	48.89	45.82	87.74	3.91	6.36	915
Semi-bituminous.						
Neff's Cumberland.....	54.29	41.26	74.73	12.68	10.36	1,000
Maryland Mining Comp'ny	53.70	41.71	73.50	12.31	12.44	914
Blosburgh.....	53.05	42.22	73.11	14.75	10.77	908
Dauphin and Susquehanna	50.54	44.32	74.28	14.75	11.49	....
Bituminous.						
Newcastle.....	50.82	44.08	57.00	35.83	5.40	809
Liverpool.....	47.88	46.74	54.90	39.96	4.62	733
Sidney.....	47.44	47.22	67.56	23.80	5.49	747
Pictou.....	49.25	45.45	60.74	26.93	12.51	792
Richmond, Virginia.....	46.50	48.17	60.30	32.49	8.95	775
Cannelton, Indiana.....	47.65	47.01	58.44	34.00	4.97	686

In the last table the ranks of coals are assigned, according to their practical qualities, in ten different particulars. In respect to completeness of combustion, the second rank is assigned to the Cumberland coal. And it holds the first rank for evaporative power, under equal weights and equal bulks, and for the evaporative power of its pure combustible matter. For freedom from waste in burning, the soft bituminous coals stand first; but some of the Cumberland specimens stand very high, as high as the eleventh of forty-four kinds. And for maximum evaporative power, under given bulks, coal from Cumberland stands first.

At the close of his Report, Mr. Johnson truly remarks, that it is not "easy to assign the exact relative weight or importance of the several qualities indicated. In steam navigation, bulk as well as weight demand attention; and a difference of *twenty per cent*, which experiment shows to exist between the highest and the lowest average weight of a cubic foot of different coals, assumes a value of no little magnitude."

"For the purposes of steam navigation, therefore, the rank most important to be considered is the fifth, in which the names of coals stand in the order of their *evaporative* power, under given bulks. This is obviously true, since, if other things be equal, the length of a voyage must depend on the amount of evaporative power afforded by

* Washington, Gales & Seaton, 1844.

the fuel which can be stowed in the bunkers of a steamer, always of limited capacity." (P. 597.)

For the other purposes to which coal is mainly applied, domestic use and manufactures, the Cumberland coal has very valuable qualities to recommend it. We have alluded, in passing, to the testimony of Dr. Ure, to its value for making iron. Mr. Mushet expresses the same opinion. Professor Daniel says it is "perfectly adapted" to that purpose. When it is recollected that the Cumberland region abounds in iron ores, and in sandstone and limestone, which lie in alternate layers, and in such proximity as almost seems more than the work of chance, it will be perceived what great, what complete facilities for the manufacture of iron it contains, entirely within itself.

As a fuel for domestic purposes, the Cumberland coal has been highly praised. It is a little remarkable, that while in England the only coal used or thought of for fuel, is the soft bituminous, such as the New Castle, in the seaboard States of America, the preference for the anthracite is almost equally exclusive. In neither case is this exclusiveness the result of necessity. In Wales, there is anthracite enough for the whole nation. And the Cumberland region might long since have supplied any demand, had there been facility of communication with the seaboard. Perhaps difference of climate may in part account for this difference between the two countries. There is certainly something in the intensity of anthracite very agreeable during the arctic severity of our midwinter. But in milder weather, and in the spring and fall, what can be pleasanter than a coal, which like the Cumberland, burns with the cheerful blaze of the English kind, but with somewhat more intensity, and without their smoke?

But when we consider its value as steam coal for both railroad and ship, its introduction into the market at the very time when steam communication on land and water is going forward with such rapid strides, is a most favorable circumstance, a happy coincidence. We have been informed by very good authority, that the demand for this coal for the steamers of the port of New York, for the current year, will exceed 100,000 tons.

It is with reason that we hail the event of the opening of a twofold communication with the Cumberland coal field, as one of no little interest to the public, as well as to the stockholders of the companies owning these *placers*, of a mineral wealth more conducive, more indispensable to the welfare of the nation, than the gold of Sacramento.

GERMAN SILVER.

Few of our readers are probably aware how many applications are now-a-days made of this useful composition. We call it composition, although the majority of the people imagine that it is a metal *sui generis*, but such is not the fact. It is composed of one part of nickel, one part of spelter or zinc, and three parts of copper; but all these substances have to be pure, and be exposed to a great heat before they mix among themselves. The zinc metal, which is of a volatile nature, is put in the pot not until the first two metals are well united together. The refractory nature of nickel, and the difficulty of obtaining the metal free from arsenic, iron and cobalt, are the causes that not unfrequently we see German silver spoons of gold yellow color, while German silver prepared from pure metals will equal in whiteness sterling silver, and will not tarnish. Tea and table spoons, knives and forks, pocket-combs, musical and surgical instruments, firemen's and ship captains' speaking-trumpets, pocket-book clasps, tea sets, lamps, and gun mountings, are now mostly made with German silver. Upwards of 50,000 lbs. of this composition is manufactured in this country annually, for which the nickel is imported from Germany and England. There are but three localities of nickel ore in this country:—an ore from Chatham, in Connecticut, yields about three per cent nickel; another ore from the mine La Motte, in Missouri, yields about 10 per cent nickel; and lately a nickel ore has been discovered among the copper ore on Lake Superior.

German silver was first introduced into the United States by Dr. Feuchtwanger, of New York, who was obliged to pay, on his arrival in this country, the custom-house duties of silver, the inspectors not knowing any difference. He is the first manufacturer of the German silver in the United States, and he is justly entitled to the paternity of this useful composition. He received, in 1834, '35, and '36, silver medals from the American Institute for the crude material, and for his exhibition of over a hundred different useful articles. We regret much that he has not realized that remuneration which his perceptive powers and ingenuity ought to have rewarded him, while other men have realized fortunes, and continued to do so, from the information impart-

ed to them by the knowledge of Dr. Feuchtwanger. In 1837, the Doctor petitioned Congress to grant him permission of issuing $30,000 worth of pennies made of his composition, as an experiment to substitute the German silver for the copper currency; and Mr. John Quincy Adams in the House, and Mr. Benton of the Senate, spoke in the highest terms of this proposition, and it met with the approbation of the President of the United States, Mr. Van Buren, and the members of both Houses. He failed, nevertheless, in that also, on account of the unfavorable report from the Director of the United States Mint, who stated that the right of coinage belongs to the United States Government, and that it required some skill to analyze the German silver.

COPPER MINES OF MICHIGAN.

It appears, from the annual statement of the Boston and Pittsburgh Mining Company, as furnished to the Michigan State Treasurer, under oath, that the whole amount of capital paid in by the stockholders is $110,000, on which the company will pay, on the first of July next, the sum of $1,100 specific State tax. This statement shows that if these mines do not produce gold as easily as those of California, they are quite as certainly rich in wealth, and are much nearer home. By the following extract from a letter of the treasurer, Thomas M. Howe, we now find that the company have declared a dividend of $10 per share, payable the 21st of May, making the entire dividend of *sixty thousand dollars on one year's labor*, which is a return of six-tenths of the whole capital paid in.

The total expenditures of this company have been.....	$289,456 87
Total receipts from sales of copper at Baltimore and Pittsburgh.....	209,623 99
Refined ingot copper now on hand at Pittsburgh for sale.....	39,000 00
Copper on the lake shore, and at the mine ready for shipment.....	35,660 96

Making the product of the Cliff Mine $294,286 95 in two years, or the sum of $147,142 47 per annum.

THE GOLD MINES OF RUSSIA.

Among the voluminous mass of the Parliamentary papers of last session, will be found a single sheet, entitled, "A return of the Quantity of Gold produced in the empire of Russia." This return was furnished by Sir E. Baynes, the English Consul at St. Petersburgh, and was laid before the House of Commons, in consequence of the wish expressed by that body in an address presented to her Majesty. It consists of two pages only, yet, light as it is, when compared with the mighty documents from the midst of which we have just drawn it forth, it contains startling facts, and is suggestive of very weighty considerations.

Our readers are probably aware, that, previously to the discovery of America, Europe was comparatively poor in the precious metals. They may not be equally cognizant of the fact, that the value of gold, as compared with silver, was not so great then as it is now. It has been stated that, in the three centuries which have elapsed since its discovery by Columbus, the New World has, till within the last few years, supplied yearly four times as much gold and about twelve times as much silver as the whole of Europe and Asiatic Russia together. The speedy consequence of such an influx of the precious metals into Europe is, as is well known, a great depreciation in their value, as compared with the value of all other articles, of which the supply did not increase in a like ratio. We find, for instance, that the prices of wheat and similar products were trebled between the year 1570 and the year 1630. Another, but less obvious consequence, was a considerable rise in the value of gold as compared with that of silver. At present, the values of equal weights of gold and silver are in the proportion of 15½ to 1; the total amount of silver in existence being, probably, to that of gold in about the proportion of 40 to 1.

The largest exports of the precious metals from America were from the year 1800 to the year 1810. It was computed by Jacobs that the average yearly supply derived from the New World, was, at the time he wrote, diminished by one-half. We must remember, however, that this decrease is not to be attributed to the supply being exhausted. The real cause of the falling off, is to be found in the war between Spain and her transatlantic dependencies, which commenced in the last mentioned year, and the consequent paralysis of mercantile enterprise, from which they have not yet recovered. Such a diminution of supply is, therefore, clearly temporary; and we may

look forward to the future yearly exports of the precious metals from America, as not only equalling but even exceeding those of the ten years we have mentioned. The energy of our transatlantic kinsfolk—the Normans of the New World—must, sooner or later, be felt through the entire length and breadth of that continent; and the increased production of the precious metals which we anticipate, will be one of its natural consequences. Meanwhile, the total value of the gold and silver annually exported from America has been estimated at about £5,500,000 sterling.

The gold mines of Russia have long been celebrated; but, within the last few years, the quantity of gold produced in that country has increased, with a steadiness and rapidity which is unprecedented. In fact, the increased supply threatens, if it continues, to produce, in a modified degree, an effect similar to that which resulted from the vast influx of the precious metals which followed on the discovery of America. The return before us shows, that the quantity of gold produced in Russia is about four times what it was only ten years since; and the value of the produce, reported to the government, in the year 1846, is estimated at nearly £3,500,000 sterling. This estimate, however, does not adequately represent the value of the gold yearly produced in Russia. Sir Edward Baynes tells us, that the official statements, on which his return is founded, only comprise the produce reported to the government, and that there is reason to believe that considerable quantities have not been declared, partly from peculation, and partly to evade the heavy duties, varying from 12 to 24 per cent, which are levied on the produce of the private mines. We shall not, therefore, be far wrong if we estimate the value of the gold produced in Russia at £4,000,000 sterling per annum, while the total value of gold and silver exported from America is considerably less than £6,000,000, the greater part of that sum arising from the exports of silver. Nor is there reason to suppose that the increased supply is likely to fail. The produce of the Siberian mines has increased year by year, and it is said, moreover, that we may look for an increased supply from the Oural, the produce of which region has, for many years past, been stationary. Sir E. Baynes, in his return, speaking of our prospects in this respect, says: "It is said that new mines have been discovered in the Oural; and the fact of an imperial ukase having lately forbidden the sale of public estates in the region of the auriferous sands of Siberia, justifies the inference, that the government have made successful surveys in that direction, and anticipate a further profitable development of the gold washings which have been so fruitful during the last four years. Under these circumstances, it would seem reasonable to expect an increase of supply, of which, however, it is quite impossible to estimate either the proportion or the continuance."

Vast as is the accumulation of the precious metals already existing, a yearly increment to our store of gold, so much greater than that of former times, must make itself felt in depreciating the value of that metal, and in raising prices, as estimated in gold, although, no doubt, the extent of our already accumulated stock will prevent any rise similar in extent to that which was witnessed at the close of the 16th century. We have said prices as estimated in gold, for a principal effect of the increased supply of gold will be to alter the relative value of gold and silver—in other words, to raise the price of silver, with us a mere article of commerce as estimated in gold, our standard of currency. This is exactly the converse of the change in the scale of metallic values, which, as we have already mentioned, followed on the discovery of America. With reference to the probable extent of such change in relative value, we may here remark, that it was formerly calculated that the quantity of gold produced in America was 1-46th of the silver produced, and that the gold produced in Europe and Asiatic Russia was 1-40th of the silver produced in the same regions. We see, therefore, that on the discovery of America, the supply of both metals was greatly increased, though not in exactly the same proportions; whereas the enormous increase of gold, to which we now call attention, is not accompanied and balanced by any relative increase of silver, or by anything approaching thereto. We must, therefore, anticipate that the change in the relative value of gold and silver will be much more violent than the former converse change to which we have alluded, and we may, consequently, expect to see gold and silver approximate in value more nearly than they did before the discovery of America. Till within a recent period, a large portion of the precious metals, produced by the New World, used to be absorbed by the markets of the East. This is no longer the case. And the absence of such demand will tend to increase the effect produced by the augmented supply of gold. We must also remember that hoarding has, in our own island, been already exterminated by the banking system, which is actively at work, and must sooner or later produce a like result in other countries. Before the

increased supply of gold, which we are now more especially considering, began, the annual supply of the precious metals was more than sufficient to replace the loss created by wear and tear. We may fairly infer, that, in consequence of such annual surplus, the precious metals have always been steadily, but very gradually, depreciating in value—the depreciation being checked by the application, from time to time, of gold and silver to new purposes of art and luxury. Such gradual depreciation of gold must, we repeat, be greatly accelerated by the enormously augmented supplies from Siberia. Speaking roundly, we may say that the total annual supply of gold is doubled by the increased product of the Siberian mines, as it was formerly quintupled by the discovery of America. We shall not here speculate on the possible extent of the change which such an increased supply is calculated to produce in the relative value of gold and silver, nor on the inevitable effect of such a change on our currency and our funded debt.—*London Mining Journal.*

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

THE LAND, PROPERTY, AND TAXES OF NEW YORK STATE.

The Comptroller's Report furnishes a tabular statement of the aggregate valuations of real and personal estate in each of the several counties of the State of New York, the number of acres of land assessed in each county, the amount of town, county, and State taxes, and the rates of taxation on each dollar of corrected aggregate valuations for the year 1848. From this table we compile the following summary:—

Acres of land in the State of New York, according to Barr's map...	28,297,142
" " taxed.....	27,906,363
Assessed value of real estate.....	$526,624,853
" personal estate.....	125,663,318
Corrected aggregate valuations.....	651,619,595
Amount of State and county taxes.....	3,985,738
" town taxes.....	1,309,720
Total taxation of the State.....	5,295,458
Rate of State, county, and town taxes on $1 valuation, in mills and fractions.....	8.11

Three counties, it appears from the Report of the Comptroller, Essex, Hamilton, and Sullivan, neglected to report, and the valuations and taxes of these counties have been taken from last year. The statement, as compared with 1847, shows an increase of valuation of $18,919,602, and an increase of taxation of $451,882, and an average increase in the rate of taxation on each dollar of valuation of .46 of a mill. The highest rate of taxation, according to the table in the Report, is in Albany, and the lowest in Putnam county—the rate of taxation being more than seven times as much in the former as in the latter county.

BANK CAPITAL AND CIRCULATION OF THE STATE OF NEW YORK.

There are in the State of New York seventy-eight incorporated banks, and one hundred and four banking associations and individual banks, showing a total of one hundred and eighty-two banks. The capital of the associations or free banks is as follows:—

Amount of securities deposited with the Comptroller December 1, 1848	$10,640,182
" capital of the free banks September 30, 1848.....	14,556,773
Capital of the Safety Fund banks.....	29,616,460
Making a total of.....	$54,813,415

We will here annex a tabular statement, compiled from the Comptroller's Report, showing the amount of capital and circulation in each county of the State. Eight counties, it will be seen, embracing Fulton, Hamilton, Queens, Richmond, Rockland, Schoharie, Sullivan, and Wyoming, are without a bank; and the greatest number of banks is in New York, Oneida, Erie, Chautauque, and Jefferson.

STATEMENT SHOWING THE NUMBER OF INCORPORATED BANKS, BANKING ASSOCIATIONS, AND INDIVIDUAL BANKS; THE AMOUNT OF CAPITAL AS REPORTED FOR SEPTEMBER 30TH, 1848; AMOUNT OF SECURITIES HELD IN TRUST, AND CIRCULATION IN EACH COUNTY, DECEMBER THE 1ST, 1848.

Counties.	Capit'l of the incorporated b'ks September 30, 1848.	Capit'l of the Banking Associat'ns and individ. b'ks Sept. 30, '48.	Am'nt of secur's held in trust for B'king Ass. and indiv. banks Dec. 1, 1848.	Total am't of cap'l and securities of all the banks.	Circulat'n of all the incorporated b'ks Dec. 1, 1848.	Cir. of all the Bnk'g Ass'ns & indiv. bks Dec. 1, 1848.	Total am't of circul'n of all the banks in each county.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Albany	1,551,600	611,110	307,327 00	2,470,027 00	1,087,962 40	285,342	1,373,304 40
Allegany	.....	5,000	66,000 00	71,000 00	.....	65,475	65,475 00
Broome	100,000	.....	.....	100,000 00	146,872 00	.....	146,872 00
Cattaraugus	.....	5,000	105,811 00	110,811 00	.....	105,802	105,802 00
Cayuga	450,000	10,000	50,000 00	510,000 00	447,256 00	50,000	497,256 00
Chautauque	100,000	132,850	545,472 52	778,322 52	149,986 00	534,785	684,771 00
Chemung	200,000	4,386	67,196 00	271,582 00	199,949 00	65,187	265,136 00
Chenango	120,000	5,000	93,000 00	218,000 00	160,000 00	93,000	253,000 00
Clinton	.....	5,000	91,000 00	96,000 00	.....	91,000	91,000 00
Columbia	150,000	261,050	209,190 00	620,240 00	157,645 00	191,521	349,166 00
Cortland	.....	20,000	58,319 00	78,319 00	.....	58,318	58,318 00
Delaware	.....	137,400	134,087 34	271,487 34	.....	111,850	111,850 00
Dutchess	400,000	260,000	327,336 00	987,336 00	400,000 00	302,250	702,250 00
Erie	.....	565,005	512,524 00	1,077,529 00	.....	509,737	509,737 00
Essex	100,000	25,000	50,000 00	175,000 00	150,000 00	49,995	199,995 00
Franklin	.....	133,600	85,100 00	218,700 00	.....	85,100	85,100 00
Fulton	.....	.....	.....	.....	.....	.....	.....
Genesee	100,000	251,531	182,082 25	533,613 25	149,862 00	144,785	294,647 00
Greene	225,000	120,000	189,023 00	534,023 00	323,624 91	187,725	511,349 91
Hamilton	.....	.....	.....	.....	.....	.....	.....
Herkimer	200,000	201,300	195,665 10	596,965 10	199,955 00	195,343	395,298 00
Jefferson	400,000	193,989	318,343 39	912,332 39	399,976 00	281,205	681,181 00
Kings	600,000	300,000	182,907 00	1,082,907 00	407,971 00	182,907	590,878 00
Lewis	100,000	102,450	105,650 00	308,100 00	117,912 00	84,650	202,562 00
Livingston	100,000	150,250	115,228 00	365,478 00	149,859 00	111,612	261,471 00
Madison	100,000	.....	.....	100,000 00	149,957 50	.....	149,957 50
Monroe	700,000	459,000	426,983 37	1,585,983 37	549,869 50	408,079	957,948 50
Montgomery	100,000	204,000	179,798 00	483,790 00	143,350 00	168,937	304,287 00
New York	17,001,200	7,135,022	2,305,397 17	26,441,619 17	8,502,914 59	2,143,793	10,646,707 59
Niagara	.....	385,000	242,552 00	627,552 00	.....	175,368	175,368 00
Oneida	1,100,000	815,960	716,277 25	2,632,237 25	924,809 00	683,896	1,608,705 00
Onondaga	300,000	175,750	226,902 86	702,652 86	348,851 00	200,500	549,351 00
Ontario	900,000	9,900	60,574 09	970,474 09	749,870 00	60,574	810,444 00
Orange	445,660	269,300	305,999 00	1,020,959 00	509,988 00	291,720	801,708 00
Orleans	200,000	73,345	95,182 00	368,527 00	199,998 00	83,500	283,498 00
Oswego	.....	160,000	189,491 76	349,491 76	.....	188,890	188,890 00
Otsego	220,000	127,000	127,000 00	474,000 00	309,979 00	127,000	436,979 00
Putnam	.....	212,600	235,600 00	448,200 00	.....	233,627	233,627 00
Queens	.....	.....	.....	.....	.....	.....	.....
Rensselaer	1,438,000	157,500	114,020 00	1,709,520 00	1,176,406 00	114,020	1,290,426 00
Richmond	.....	.....	.....	.....	.....	.....	.....
Rockland	.....	.....	.....	.....	.....	.....	.....
St. Lawrence	100,000	15,000	211,000 00	326,000 00	142,500 00	210,966	353,466 00
Saratoga	100,000	260,540	316,022 00	676,562 00	148,600 00	307,204	455,804 00
Schenectady	315,000	.....	.....	315,000 00	334,305 00	.....	334,305 00
Schoharie	.....	.....	.....	.....	.....	.....	.....
Seneca	200,000	.....	.....	200,000 00	198,697 00	.....	198,697 00
Steuben	150,000	104,500	95,550 00	350,050 00	174,991 00	63,384	238,375 00
Suffolk	.....	18,795	77,815 64	96,610 64	.....	76,692	76,692 00
Sullivan	.....	.....	.....	.....	.....	.....	.....
Tioga	200,000	.....	.....	200,000 00	200,000 00	.....	200,000 00
Tompkins	450,000	55,000	108,991 00	613,991 00	420,016 50	107,514	527,530 50
Ulster	300,000	10,000	151,000 63	461,000 63	349,975 00	149,494	499,469 00
Warren	.....	105,000	110,000 00	215,000 00	.....	110,000	110,000 00
Washington	100,000	157,600	130,337 00	387,937 00	149,887 00	108,759	258,646 00
Wayne	.....	20,000	79,270 00	99,270 00	.....	79,270	79,270 00
Westchester	200,000	126,050	143,157 08	469,207 08	193,266 00	120,986	314,252 00
Wyoming	.....	.....	.....	.....	.....	.....	.....
Yates	100,000	.....	.....	100,000 00	149,982 00	.....	149,982 00
Total	29,616,460	14,556,773	10,640,182 45	54,813,415 45	20,677,042 40	9,993,762	30,670,804 40

NEW YORK STATE STOCK.

COMPTROLLER'S OFFICE, *Albany, February* 2, 1849.

The whole amount of State stocks issued and unredeemed is $23,743,526 80, of which $6,654,410 are held in foreign countries, and $16,788,247 36 by citizens of this country, as will more fully appear by reference to the tabular statement hereunto annexed.

The Comptroller has been delayed in furnishing this information, because it was necessary to write to the several transfer agencies in New York to obtain it. That for the Hudson and Delaware Company is not received, but he thought he would not longer delay the report on that account. This statement only shows who the holders are, as appears from our books; but he is informed that stocks may be, and often are, held by citizens here in trust for persons residing in Europe, without that fact appearing on the transfer book. All of which is respectfully submitted,

MILLARD FILLMORE, *Comptroller.*

Description of stocks.	Held in foreign countries.	Held in this country.
Canal stocks	$5,954,160	$10,722,498 91
General fund stocks	.....	909,607 00
Comptroller's bonds for loans to treasury	20,950	1,369,741 45
Stocks issued to railroad companies.		
New York and Erie	308,000	2,692,000 00
Ithaca and Oswego	116,300	199,400 00
Canajoharie and Catskill	118,000	82,000 00
Auburn and Syracuse	102,000	98,000 00
" Rochester	7,000	193,000 00
Tonawanda	1,000	99,000 00
Hudson and Berkshire	.....	150,000 00
Long Island	16,000	84,000 00
Schenectady and Troy	10,000	90,000 00
Tioga Coal, Iron, Mining Company, &c.	1,000	69,000 00
Total	$6,654,410	$16,788,247 36
		6,654,410 00
Total		$23,442,657 36
Delaware and Hudson Canal, (no statement received from transfer officer)		300,869 44
		$23,743,526 80

UNITED STATES TREASURY NOTES.

TREASURY DEPARTMENT, *Register's Office, Feb.* 1, 1849.

The following is the amount of Treasury Notes now outstanding:—

Amount outstanding of the several issues prior to the act of 22d July, 1846, as per records of this office	$154,389 31
Amount outstanding of the issue of 22d July, 1846, as per records of this office	223,900 00
Amount outstanding of the issue of 28th January, 1847, as per records of this office	8,419,750 00
Total	8,798,039 31
Deduct cancelled notes in the hands of the accounting officers, of which $10,400 is under the act of 22d July, 1846, $5,500 under the act of 28th of January, and $500 under other acts	16,400 00
Balance	8,781,639 31

DANIEL GRAHAM, *Register of the Treasury.*

COINAGE OF THE UNITED STATES MINT IN 1848.

We published, in the last number of this department of the *Merchants' Magazine*, a complete statistical account, with comprehensive historical notices, of the progress of the United States Mint, and its branches, from its origin, in 1792, to 1847, inclusive, in which we presented the "facts and figures" of the kind and amount of the coins which have been issued from the institution during the whole period of its existence down to 1847, inclusive. From the Annual Report of R. M. Patterson, Esq., the Director of the Mint, recently communicated to Congress, we now proceed to lay before our readers the substance of that Report for 1848, in an abridged form. It appears that the deposits for coinage at the Mint of the United States and branches, during 1848, were as follows:—

At Philadelphia, in gold	$2,780,930
" in silver	420,050
" in copper	64,158
Total	$3,265,138

[Number of pieces coined, 8,691,444.]

The deposits for coinage amounted to, in gold, $2,584,460; in silver, $466,732.

At New Orleans, in gold	$358,500
" " in silver	1,620,000
Total	$1,978,500

[Number of pieces coined, 3,815,850.]

The deposits for coinage amounted to, in gold, $183,360; in silver, $1,659,774.

At Charlotte, North Carolina, the amount received during the year for coinage, in gold, was $370,799. The coinage amounted to $364,330—composed of, half eagles 64,472, quarter eagles 16,788.

At Dahlonega, Georgia, the amount received during the year for coinage in gold, was $274,473; amount coined, $271,752½—composed in number of, half eagles 47,465, quarter eagles 13,771.

The deposits at the four mints during the year, amounted in all to $5,539,598.

In gold	$3,413,092
In silver	2,126,506
The coinage amounted to—	
In gold	$3,775,512½
In silver	2,040,050
In copper	64,158
Total	$5,879,720½

MOVEMENT OF THE NEW ORLEANS BANKS.

We give below the official statement of the condition of the New Orleans banks, as made up at the office of the Board of Currency, New Orleans, February 1, 1849:—

	Cash liabilities.	Assets.	Circulation.	Specie.	Liabilities, exclu. of cap'l.		Assets.	
SPECIE PAYING.								
Bank of Louisiana	$4,159,003	$6,151,597	$1,203,442	$2,546,156	$4,666,503	41	$10,003,954	16
Canal Bank	3,190,335	4,211,926	1,302,705	1,256,922	3,199,335	33	7,305,810	30
City Bank	2,375,060	3,338,680	524,710	1,310,460	2,746,797	33	4,623,785	42
Louisiana State Bank	1,753,343	2,819,729	409,780	704,542	1,753,342	98	3,559,193	11
Merchants' and Traders'	3,152,164	4,077,297	813,605	1,731,382	3,152,164	40	5,028,757	16
Union Bank	36,034	697,159	25,995	378,273	96,683	96	6,242,735	51
NON-SPECIE PAYING.								
Citizens' Bank	751,258	229,189	107,317	25,004	7,219,265	64	7,388,885	02
Consolidated Bank	1,830,196	9,006	1,828,345	5,938	1,835,195	71	1,463,114	59
Total	$17,247,393	$21,534,583	$6,215,899	$7,958,677	$24,660,288	76	$45,616,235	27

FINANCIAL REPORT OF THE CROTON WATER BOARD.

The following statement shows the revenue received and the expenditures *since the organization of the Department*, from October 5, 1842, to the present time :—

			Receipts.	Expenditures.
October 5, 1842, to May	1, 1843...		$17,838 67	.....
May 1, 1843, "	1844...		91,790 60	$233,198 76
" 1844, "	1845...		118,582 74	73,411 78
" 1845, "	1846...		164,532 53	58,433 67
" 1846, "	1847...		194,551 34	53,403 04
" 1847, "	1848...		226,551 83	71,565 74
" 1848, to January	31, 1849...		234,268 79	67,062 47

The expenditures, as above, include the purchase and laying down of main pipes and branches, stopcocks, &c., which belongs to the constructive account, and comprises the principal item in the expenses of the Department.

The following statement shows the *rate of Water Tax* levied in the city for the several years named, to defray that part of the interest on the Croton Water Department which is not furnished by the receipts from water rents :—

In 1842 it was	20	cents	on one hundred	dollars.
1843 "	23 38-100	"	"	
1844 "	20 94-100	"	"	
1845 "	16 47-100	"	"	
1846 "	12 70-100	"	"	
1847 "	12 60-100	"	"	
1848 "	11 90-100	"	"	

The following statement shows *the quantity of pipes laid*, south of the Distributing Reservoir, up to this time :—

36-inch pipe.....	23,650 feet—or	4 miles.....	2,530 feet.
30-inch "	6,250 "	1 mile.....	970 "
24-inch "	5,400 "	1 "	120 "
20-inch "	20,675 "	3 miles.....	4,835 "
16-inch "	13,125 "	2 "	2,565 "
12-inch "	217,075 "	41 "	595 "
10-inch "	5,875 "	1 mile.....	595 "
6-inch "	661,150 "	125 miles.....	1,150 "

Or, of all sizes, 180 miles, and 2,800 feet.

SPLITTING A BANK OF ENGLAND NOTE.

It is stated in the London *Globe*, that the Governor and Directors of the Bank of England, having been informed of the extraordinary ingenuity of Mr. Baldwin, and that he was able to split not only a newspaper, but a banknote, sent for him, in order to test his skill. That his task might be as difficult as possible, they picked him out one of the old £1 notes, which are printed on paper much thinner than the notes of the present day, and told him to split it if he could. Mr. Baldwin took the note home with him, and returned it the next day, in the state he had promised. The paper was not in the slightest degree torn, and seemed as though it had but just come from the manufactory, so little was its appearance affected by the operation. The directors remunerated Mr. Baldwin for his trouble, but could not elicit from him the means he employed. The discovery is considered of much importance in connection with the paper currency of the country.

THE UNITED STATES LOAN OF 1848.

TREASURY DEPARTMENT, *February* 7, 1849.

The means of the government being ample to liquidate all claims against it up to the 1st of April next, without calling in, before that date, any further payments on account of the loan of 1848, and desiring to save all unnecessary interest, notice is hereby given to all the successful bidders for that loan, by whom any balance is still due, that they are permitted to postpone any further payments until the 1st of April next.

R. J. WALKER, *Sec'y of the Treasury.*

COMMERCIAL STATISTICS.

UNITED STATES WAREHOUSED IMPORTS.

We give below a tabular statement exhibiting the value of merchandise remaining in the warehouses of Boston, New York, Philadelphia, Baltimore, New Orleans, Charleston, Salem, &c., on the 30th of June, 1848, and the duties which accrued thereon, compiled from a report of the Register of the United States Treasury Department:—

STATEMENT EXHIBITING THE VALUE OF MERCHANDISE REMAINING IN WAREHOUSE ON THE 30TH JUNE, 1848, AND THE DUTIES WHICH ACCRUED THEREON.

	Total value.	Rate of duty, per cent.	Duties.
Ale, porter, beer, &c.	$2,220	30	$666 00
Antimony	2,200	20	440 00
Annatto	602	10	60 20
Bacon	2,096	20	419 20
Balsams	1,129	30	338 70
Barida	2,940	10	294 00
Baskets	653	30	195 90
Beads	4,116	30	1,234 80
Beans, Vanilla and Tongua	7,737	20	1,547 40
Beeswax	1,450	20	290 00
Borax, refined	2,479	25	619 75
Books	3,128	10	312 80
Brimstone	1,435	15	215 25
Brushes	1,533	30	459 90
Button stuffs	1,032	5	51 60
Brass, manufactures of	4,811	30	1,443 30
Button moulds	10,945	25	2,736 25
Buckles	1,511	30	453 30
Burlaps	20,226	20	4,045 20
Britannia ware	967	30	290 10
Camphor	7,432	25	1,858 00
Coffee	1,389	20	277 80
Clothing, ready made	4,618	30	1,385 40
Cocoa	1,510	10	151 00
Coal	4,769	30	1,430 70
Corks	1,922	30	576 60
Cottons, colored and white	721,146	25	180,286 50
Cotton cords, gimps, tamboured, &c.	3,594	30	1,078 20
" shawls	4,683	30	1,404 90
" and worsted goods	7,551	30	2,265 30
" " shawls	10,056	30	3,016 80
" and merino hosiery	1,265	30	379 50
" and worsted goods	124,198	25	31,049 50
" and linen goods	20,804	25	5,201 00
" and silk goods	1,303	25	325 75
" velvets	21,368	20	4,273 60
" hosiery, gloves, &c	24,186	20	4,837 20
" twist thread, &c.	55,191	25	13,797 75
Copper bottoms	786	20	157 20
" old	548	5	27 40
Cudbear	844	10	84 40
Dye stuffs	4,601	20	920 20
"	6,789	10	678 90
Drugs	4,785	20	959 00
Engravings	1,363	10	136 30
Earthenware	47,050	30	14,115 00

VALUE OF MERCHANDISE REMAINING IN WAREHOUSE—CONTINUED.

	Total value.	Rate of duty, per cent.	Duties.
Fish, dried or smoked	$1,208	20	$241 60
" salmon, pickled	5,111	20	1,022 20
" mackerel	6,983	20	1,396 60
" all other	2,216	20	443 20
Fire arms, muskets	2,319	30	695 70
" fowling pieces	992	30	297 60
Flax, unmanufactured	4,547	15	682 05
" manufactures of linens	417,053	20	83,410 60
Flowers and feathers, artificial	2,109	20	632 70
Flour	5,533	20	1,106 60
Fruits, almonds	13,813	40	5,525 20
" raisins	27,491	40	10,996 40
Furs, undressed on the skin	795	10	79 50
" dressed on the skin	736	20	147 20
Fustic	2,579	5	128 95
Glass ware, cut, not specified	989	40	395 60
" plain, "	7,597	30	2,279 10
Glue	594	20	118 80
Grass cloth	2,112	25	528 00
Gum Arabic	3,270	10	327 00
" not specified	2,597	20	519 40
" copal	10,539	20	2,107 80
Gunny bags	8,160	20	1,632 00
Hemp, unmanufactured	49,438	30	14,831 40
" manufactures of	6,299	20	1,259 80
" bags and bagging	11,089	20	2,217 80
" sail duck	42,552	20	8,510 40
" raven's duck	8,745	20	1,749 00
" cordage	19,636	25	4,909 00
" hempen yarn	29,058	20	5,811 60
Hair	12,512	10	1,251 20
Hats, caps, and bonnets of straw	7,014	30	2,104 20
Hides, raw	67,261	5	3,363 05
Honey	6,096	30	1,828 80
Horns	676	5	33 80
Iron and steel, manufactures of	70,812	30	21,243 60
" cutlery	8,968	30	2,690 40
" needles	2,870	20	574 00
" anvils	4,983	30	1,494 90
" hoop iron	8,951	30	2,685 30
" sheet iron	79,595	30	23,878 50
" chain cables	6,819	30	2,045 70
" wire, iron and steel	1,765	30	529 50
" nails, hammers, vices, & steel pens	632	30	189 60
Iron, bar and bolt, railroad, &c	387,495	30	116,248 50
" pig	5,860	30	1,758 00
Indigo and indigo paste	55,891	10	5,589 10
Jewelry	13,786	30	4,135 80
Lac dye	1,011	5	50 55
Leather, and manufactures of	1,275	30	382 50
" kid gloves	2,593	30	777 90
Lead pencils	695	30	208 50
Liquorice, paste and root	27,602	20	5,520 40
Logwood	5,770	5	288 50
" extract of	613	20	122 60
Looking-glass plates	28,556	30	8,566 80
Manilla grass	12,443	25	3,110 75
Medicinal preparations	1,880	30	564 00
Metal, manufactures of	1,491	30	447 30
Mohair	13,752	25	3,438 00

VALUE OF MERCHANDISE REMAINING IN WAREHOUSE—CONTINUED.

	Total value.	Rate of duty, per cent.	Duties.
Molasses	$457,500	30	$137,250 00
Musical instruments	8,589	20	1,717 80
Oil, linseed	1,826	20	365 20
" olive	3,264	30	979 20
" essential	4,196	30	1,258 80
" cassia	1,448	30	434 40
" palm	7,759	10	775 90
Oil cloth and floor cloth	1,754	30	526 20
Olives	582	30	174 60
Opium	4,918	20	983 60
Paints, green and other	2,249	20	449 80
Paper, writing	3,895	30	1,168 50
Paper hangings	1,982	20	396 40
Perfumery	771	30	231 30
Pot ash	5,185	20	1,037 00
Pot ash, prussiate of	3,274	20	654 80
Quinine, sulphate of	4,081	20	816 20
Rags of all kinds	2,023	5	101 15
Rhubarb	659	20	131 80
Rubber, India, shoes of	8,376	30	2,512 80
Saddlery, common tinned, &c.	3,390	20	678 00
" brass	844	30	253 20
Salt	1,078	20	215 60
Saltpetre	4,234	10	423 40
Sardines	2,864	40	1,145 60
Scammony	739	20	147 80
Silks, piece goods	486,726	25	121,681 50
" laces, veils, shawls, &c.	32,146	30	9,643 80
Silk hats	694	30	208 20
" umbrellas and parasols	1,825	30	547 50
" and crape shawls and scarfs	50,063	30	15,018 90
" raw	5,062	15	759 30
" and cotton goods	37,278	25	9,319 50
" and worsted goods	102,721	25	25,680 25
" and worsted shawl	29,192	30	8,757 60
" and cotton shawls	4,128	30	1,238 40
" sewings	14,715	30	4,414 50
Slates	741	25	185 25
Soap	1,691	30	507 30
Soda	1,672	20	334 40
Sponge	943	20	188 60
Spices, mace	10,285	40	4,114 00
" nutmegs	56,253	40	22,501 20
" cinnamon	4,943	30	1,482 90
" cloves	2,680	40	1,072 00
" pepper, black	32,847	30	9,854 10
" pepper, red	1,281	30	384 30
" pimento	4,630	40	1,852 00
" cassia	634	40	253 60
" ginger, in root	3,858	40	1,543 20
Spirits, brandy	185,749	100	185,749 00
" gin	66,473	100	66,473 00
" rum	77,820	100	77,820 00
" whiskey	5,220	100	5,220 00
" cordial	3,535	100	3,535 00
Steel, cast, shear, and German	6,742	15	1,011 30
" all other	1,666	20	333 20
Straw, plaits, braids, flats, &c.	67,935	30	20,380 50
Skins, sheep, dressed	2,307	39	692 10
" coney, "	1,533	20	306 60

VALUE OF MERCHANDISE REMAINING IN WAREHOUSE—CONTINUED.

	Total value.	Rate of duty, per cent.	Duties.
Sugar, brown and white, clayed	$439,335	30	$131,800 50
Tin, in plates	1,690	15	253 50
Tobacco, in leaf	.30,330	30	9,099 00
" cigars	90,799	40	36,319 60
Toys	2,322	30	696 60
Watches, gold and silver	9,244	10	924 40
Wheat	9,787	20	1,957 40
White lead	1,278	30	383 40
Wine in casks and bottles	207,846	40	83,138 40
Wood, manufactures of	1,357	30	407 10
" mahogany and cedar	23,288	20	4,657 60
Wool, unmanufactured	108,817	30	32,645 10
Woollens, cloths, &c	430,972	30	129,291 60
" baize and flannels	1,770	25	442 50
" blankets	41,037	20	8,207 40
" listings	37,472	20	7,494 40
" carpeting	22,285	30	6,685 50
" carpet-binding and bags	1,313	25	328 25
" hosiery, woollen, and worsted	5,935	30	1,780 50
" worsted goods	180,542	25	45,135 50
" worsted and woollen shawls	36,408	30	10,922 40
" worsted yarn	7,154	25	2,788 50
Zinc, in sheets	31,526	15	4,728 90
" sulphate of, or white vitriol	1,112	20	222 40
" manufactures of	1,363	30	408 90
Articles not exceeding in value $500 each	11,027	..	2,940 50
Total dollars	$6,272,275	..	$1,936,464 00

FOREIGN IMPORTS OF BOSTON IN 1848.

The Boston Traveller gives the following statement of Custom-House imports and duties of that port for 1847 and 1848 :—

Value of dutiable merchandise imported at this port for 1847	$23,846,076 00
" " " " " 1848	21,153,335 00
Decrease of 1848	$2,692,741 00
Value of free merchandise imported at this port for 1847	$2,236,947 00
" " " " 1848	1,662,167 00
Decrease of 1848	$574,780 00
Amount of specie imported in 1847	$12,480,920 00
" " " 1848	241,029 00
Decrease of 1848	$12,239,891 00
Amount of duty paid on foreign merchandise for 1847	$4,448,361 82

It will be seen by the above, that there is a falling off all around in 1848, especially in the item of specie. The year 1847 was one of famine in England. The specie came over in payment of breadstuffs, and as the English steamers did not then run to New York, nearly all of it was entered at Boston, though much of it belonged to New York, Philadelphia, &c.

The following statement will show the amount of merchandise deposited in the warehouses in the Boston Collection District during the years 1847 and 1848 :—

In 1847 ..... $3,305,619 | In 1848 ..... $6,177,566

PRICE OF BAR IRON IN LIVERPOOL FROM 1817 TO 1849.

The following statement of the *selling* price of merchant bar iron in Liverpool has been prepared with very great care, and shows some of the most remarkable facts in the history of trade.

On the introduction of railways into general use, railway bars, at first, commanded a price varying from £1 10s. to £2 per ton. During a few past years, ordinary rails have been furnished at a shade only below the quotation price of merchant bar.

	Per ton.		Per ton.
1817—February	£8 10	1837—February	£10 5
March	9 10	March	9 15
July	10 10	May	9 00
August	12 00	June	8 10
October	13 00	July	7 5
1818—February	12 15	August	6 15
April	11 15	" 15	7 5
May	11 5	" 19	8 00
June	10 15	" 31	8 15
August	10 00	September	9 10
September	11 10	December	9 15
December	12 10	1838—January	9 10
1819—May	11 10	December	9 15
June	11 00	1839—January	10 5
1820—March	10 10	May	10 00
June	9 10	June	9 15
1821— "	9 00	September	9 10
1822— "	8 10	1840—January	9 00
1823— "	8 00	December	8 00
1824—January	8 15	1841—April	7 15
July	9 15	1842—January	6 10
September	10 00	December	5 5
October	11 00	1843—April	5 00
"	13 10	June	4 10
"	10 00	1844—January	4 15
November	12 10	March	4 15
December	13 00	April	5 5
1825—January	14 00	August	5 15
February	15 00	October	5 15
March	14 10	December	5 15
April	14 00	1845—February	8 00
August	13 00	March	10 10
"	12 10	April	9 10
September	11 10	May	9 10
1826—January	11 00	July	8 10
April	10 10	1846—April	9 00
May	9 10	August	9 00
October	10 00	November	11 00
1827—March	9 10	1847—January	10 10
1828— "	8 00	April	9 10
1829— "	7 00	July	9 15
1830— "	6 00	August	9 8
1831— "	6 00	December	8 5
1832— "	5 10	1848—January 4	8 00
1835—February	6 5	" 28	7 00
September	7 00	February 25	7 15
October	7 10	March	7 00
November	8 00	April	6 15
December	8 5	May	6 5
1836—January	10 10	June	6 00
April	11 10	October	5 10
July	11 5	November	5 5
October	11 00	December	4 15
November	10 15	1849—January 15	5 5
December	10 10		

IMPORTATION OF ADULTERATED DRUGS.

In the Merchants' Magazine for September, 1848, (vol. xix., p. 326,) we published entire the act of Congress, passed in June, 1848, to prevent the Importation of Adulterated and Spurious Drugs and Medicines. The following statement is derived from the report of Dr. T. O. Edwards, one of the special examiners, appointed for that purpose by the Secretary of the Treasury. The report was of course made to that functionary.

"In answer to the question, What articles of drugs, medicines, &c., have you rejected? in what quantities? and whence were they imported? the examiner at New York reports that he rejected—

July	19,	6,650 lbs. rhubarb root, from Canton.
"	21,	931 lbs. opium, from Marseilles.
August	10,	750 lbs. opium, from Marseilles.
"	11,	2,940 lbs. jalap root, from Tampico.
"	31,	2,249 lbs. rhubarb root, from London.
September	1,	645 lbs. rhubarb root, from London.
"	5,	1,414 lbs. gum gamboge, from London.
"	8,	545 lbs. rhubarb root, from Hamburgh.
"	9,	1,400 lbs. senna, from Leghorn.
"	19,	2,900 lbs. spurious yellow bark, from Bordeaux.
"	20,	878 lbs. rhubarb root, from Canton.
"	22,	758 lbs. opium, from London.
"	25,	1,783 oz. iodine, from London.
"	26,	1,075 lbs. rhubarb root, from Marseilles.
"	26,	875 lbs. jalap root, from Vera Cruz.
"	29,	3,400 lbs. jalap root, from Vera Cruz.
October	23,	788 lbs. rhubarb root, from London.
"	23,	227 lbs. gum myrrh, from London.
"	25,	13,120 lbs. spurious yellow bark, from Marseilles.
"	26,	1,875 lbs. spurious yellow bark, from Bordeaux.
November	11,	412 lbs. gum myrrh, from London.
"	27,	1,280 oz. iodine, from London.
"	28,	860 lbs. opium, from Smyrna.
"	30,	185 lbs. rhubarb root, from London.
December	5,	156 lbs. opium, from London.
"	5,	1,065 lbs. gum myrrh, from London.
"	23,	12,800 lbs. spurious cinchona bark, from Carthagena.

"The opium, gum, myrrh, gum gamboge, iodine, and senna, were greatly adulterated, and (with the exception of the iodine) were also deteriorated by age and other causes. A considerable portion of the rhubarb root was in a deteriorated and decayed condition from age, and the remainder had been exhausted of its active properties for the purpose of making extracts. Much of the jalap root was of the spurious or bastard varieties, mixed with a small proportion of the genuine root.

"The spurious yellow bark was in its natural state, but being of those bastard varieties of cinchona that afford no *quinine*, and very little, if any, *cinchonine*, it is worthless for medicinal purposes. It has, heretofore, from its low price, ($4 per 100 lbs.,) been imported, powdered, and not only extensively used in the adulteration of the genuine (cinchona cordifolia) yellow bark, but sold in large quantities to the unsuspecting for the genuine article."

BRITISH EXPORTS OF COTTON GOODS.

Burn's Commercial Glance, for the last five years, has just appeared, exhibiting the quantity of yarn and cotton goods exported during the years 1844, 1845, 1846, 1847, and 1848. The exports of yarn during the year 1848 were 127,121,446 lbs.; showing an increase over the export of 1847 of 10,608,572 lbs. The export of 1847, however, was the smallest since 1841. The chief sources of the increase are in the exports to Denmark, (which were 888,000 lbs. in 1847, and 1,636,000 lbs. in 1848,) Holland, (the increase exceeding 2½ million lbs.,) and Malta and the Ionian Islands, (where the increase has been 1,100,000 lbs.;) Naples and Sicily, (increase 2,100,000 lbs.,) Sardinia,

Tuscany, &c., (increase 2,800,000 lbs.,) and Turkey and the Levant, (increase upwards of four million lbs.) There is a large decrease observable in the exports to the Hanse Towns and to India. Of plain calicoes the exports were 566,199,538 yards in 1848; being an increase of 108,154,856 yards over the export of 1847. The chief sources of this increase are the exports to Buenos Ayres and Monte Video, Egypt, Gibraltar, (where the increase is 13 million yards,) India, (increase 20 million yards,) China, Portugal, and Madeira, (increase 17 million yards,) and the Levant, &c. The United States, which took 41½ million yards of us in 1847, had less than 17 million yards in 1848; but they now ship from this country direct for China, &c. Of printed and dyed calicoes the total export, in 1848, was 301½ million yards; being an increase of 14½ million yards over the export of 1847.

NEW YORK EXPORT AND IMPORT OF NAVAL STORES.

We give below a statement of the exports and imports of naval stores at the port of New York for the year ending the 1st of January, 1849:—

IMPORTATIONS OF NAVAL STORES AT NEW YORK FROM JANUARY, 1848, TO JANUARY, 1849.

	Turpentine.	Tar.	Rosin.	Spirits turpentine.
January	7,458	1,044	9,477	4,306
February	14,842	3,090	15,345	7,130
March	13,381	3,783	10,074	5,443
April	30,206	8,379	26,469	7,450
May	7,479	2,890	23,385	3,793
June	11,365	2,859	17,348	3,083
July	18,520	1,222	9,596	5,048
August	19,505	4,054	12,532	3,402
September	25,293	4,561	15,968	6,485
October	27,623	2,789	12,290	4,625
November	18,920	4,438	9,726	4,116
December	9,423	2,031	9,674	2,414
Total	204,015	41,140	171,884	57,295

SUNDRIES.

Turpentine.....hhds.	109	Tar.....half bbls.	31
Spirits of turpentine.....	162	Pitch.....bbls.	3,160
" " .....pipe	1	Rosin (in bulk).....tons	175
" " .....trcs.	55	Rosin oil.....bbls.	75
" " ...half bbls.	21		

EXPORT OF NAVAL STORES FROM THE PORT OF NEW YORK TO THE FOLLOWING PORTS FOR THE YEAR 1848.

	Turpentine. *Bbls.*	Tar. *Bbls.*	Rosin. *Bbls.*	Spirits turpentine. *Galls.*
To Liverpool	51,045	14,442	16,854	72,577
London	89,549	485	7,780	97,753
Scotland	.....	4,923	.....	9,412
Other ports in Great Britain	12,128	50	6,629	9,530
Ireland	.....	62	6,169	....
North of Europe	5,499	4	33,425	123,389
France	.....	50	4,559	30

IMPORTS AND EXPORTS BY AMERICAN STEAMSHIPS.

The Collector of the port of New York furnishes the following statement of the value of merchandise imported and exported on board the steamships Washington and Hermann, at the port of New York:—

IMPORTS.	Free.	Dutiable.
Per Washington, from July 31, 1847, to November 6, 1848	$9,735	$2,093,618
Per Hermann, from May 23, 1848, to October 5, 1848	23,978	938,423

EXPORTS.	Domestic.	Foreign.
Per Washington, from September 22, 1847, to Nov. 19, 1848	$82,259	$24,847
Per Hermann, from March 20, 1848, to October 19, 1848	35,161	3,315

IMPORT OF IRON UNDER THE TARIFFS OF 1842 AND 1846.

The Secretary of the Treasury, according to instructions, sent to the House of Representatives a return showing the different kinds and value of articles of iron imported, and duties received, since the enactment of the tariff of 1842, of which the following is a summary:—

STATEMENT SHOWING THE VALUE OF IRON, AND MANUFACTURES OF IRON AND STEEL IMPORTED UNDER THE TARIFFS OF 1842 AND 1846, AND THE GROSS AMOUNT OF DUTIES RECEIVED THEREON.

From—	Val. of art's paying ad val. duties.	Val. of art's paying specific duties.	Total imports.	Gross amount of duties received.
1st Oct., 1842, to June 30, 1843....	$734,737	$1,161,121	$1,903,858	$902,054 84
For year ending June 30, 1844.....	2,782,137	2,445,365	5,227,502	2,477,342 35
" " " 1845.....	4,169,745	4,125,121	8,294,866	3,672,141 66
" " " 1846.....	4,069,829	3,750,599	7,820,428	2,868,787 65
From July 1, 1846, to Nov. 30, 1846	1,796,428	1,315,397	3,111,825	1,050,579 56
Total.....	13,552,876	12,805,603	26,358,479	10,970,906 00

UNDER THE TARIFF OF 1846.

	Val. of art's pay'g ad val. duties.	Total imports.	Gross amount of duties rec'd.
From Dec. 1, 1846, to June 30, 1847..	$5,669,427	$5,669,427	$1,690,511 40
For the year ending June, 1848.....	12,526,854	12,726,854	3,736,223 20
Total.....	$18,196,281	$18,196,281	$5,426,734 60

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

WESTERN RAILROAD CORPORATION.

THE Report of the Directors of this Company for the past year, makes a most favorable exhibit of its condition and of the success of the road. The whole amount of receipts from passengers, freights, mails, rents, &c., was $1,332,068 29, being an excess of $6,732 23 over that of the previous year, when an unusual combination of circumstances had tended greatly to increase the business of the road. It is a fact which demonstrates the increasing importance of the road, and which must give confidence in the value of its stock. The total amount of expenses for the past year were $652,357 11, leaving as nett earning, $679,711 18. From this was paid for interest on loans $266,380 77, and two dividends on stock of 4½ per cent each, amounting to $366,000. This leaves as a surplus $47,330 41, which, added to the surplus of November 30th, 1848, gives the sum total of $233,134 18. From this is to be deducted $45,833 34, the payment to the Sinking Funds, required for eleven-twelfths of $50,000, January 1, 1847, which leaves as an available contingent fund $187,300 84. During the year, a considerable sum has been expended on substantial repairs for the improvement of the road, which is part of the current expenses. In this period, also, all the bridges between Worcester and Springfield have been raised sufficiently high to clear the heads of persons standing upon the trains, which has prevented a numerous class of accidents, formerly occurring upon the road. About thirty-two miles of second track have been constructed, with a heavy rail, weighing 70 lbs. to the yard. Nine miles more only are required to be constructed to complete an entire second track from Worcester to Springfield. In the report is a table, showing how the stock of the Corporation is held. There are in all 51,500 shares. The Commonwealth of Massachusetts holds of these 11,004; the Massachusetts Sinking Fund, 210; Massachusetts School Fund, 550. The remaining 39,736 shares are held by corporations and individuals, and distributed among 2,780 stockholders, 1,953 holding from 1 to 10 shares, and only 42 holding over 100. This is a diffusion, that shows there is a wide and extended interest in the road, aside from that growing out of the general benefits which the public derives from it.

NEW YORK AND ERIE RAILROAD.

This road has been completed to Binghamton, a distance of 224 miles from the city of New York, and 200 from Piermont, on the Hudson, where it commences. The following table exhibits the places through which it passes, the distances, rates of fare, etc:—

STEAMBOAT AND RAILROAD ROUTE FROM NEW YORK TO BINGHAMTON, BROOME COUNTY, NEW YORK, VIA NEW YORK AND ERIE RAILROAD.

Time of leaving.	Stopping places.	Miles.	From New York.	From Bingham'n.	Fare from New York.
A steamboat leaves New York daily, Sundays excepted from foot Duane-st., for Piermont, at 7 and 8 A. M. The first train runs to Port Jervis, the second train runs through to Binghamton.	New York	..	..	224	....
	Piermont	24	24	200	$0 25
	Blauveltville	4	28	196	0 30
	Clarkstown	5	33	191	0 35
	Spring Valley	3	36	188	0 40
	Monsey	1	37	187	0 45
	Suffern	5	42	182	0 60
	Ramapo station*	3	45	179	0 65
	Sloatsburgh	2	47	177	0 70
	Monroe works	5	52	172	0 85
	Turner	5	57	167	0 95
	Monroe	3	60	164	1 00
	Oxford	2	62	162	1 00
Freight train leaves New York at 4 P. M. daily, Sundays excepted. Leaves Binghamton at 7 A. M.	Chester*	3	65	159	1 05
	Goshen*	5	70	154	1 15
	New Hampton	4	74	150	1 20
	South Middletown*	3	77	147	1 25
	Otisville	9	86	138	1 50
	Port Jervis*	12	98	126	1 75
	Pond Eddy, Pa.*	11	109	115	2 00
	Barryville*	7½	116½	107½	2 20
RETURNING,	Lackawaxen*	4	120½	103½	2 30
Cars leave Port Jervis at 6 A. M.; Binghamton at 7 A. M.	Narrowsburgh, N. Y.*	11	131½	92½	2 50
	Cochecton*	8½	140	84	2 75
	Callicoon*	5	145	79	2 90
	Hankins*	7	152	72	3 00
	Equinunk*	10½	162½	61½	3 25
	Stockport*	4½	167	57	3 35
USUAL TIME	Chehocton*	6	173	51	3 40
From New York to Binghamton, 12 hours.	Deposit*	13	186	38	3 65
	Lanesboro' Pa.*	15½	201½	22½	3 85
	Great Bend*	8½	210	14	4 00
	Conklin, N. Y.*	9½	219½	4½	4 20
	Binghamton	4½	224	..	4 50

The through train to Binghamton stops only at the places marked thus *.

At the date of the last Annual Report of the Directors, the road had just been completed, and was in operation to Port Jervis on the Delaware River, 74 miles from Piermont. In that Report it was stated that the Directors hoped to extend the road to Binghamton during the year. That anticipation has been realized, and on the 27th of December last, a passenger train passed from Piermont to Binghamton, and on the 8th of January, passenger and freight trains commenced their regular trips.

The road has been constructed in the most substantial manner, and is laid with heavy iron rails of the most approved pattern. The Company have now completed and in use two hundred miles of railroad, and are vigorously prosecuting its further extension.

From Binghamton to Corning, a distance of 76 miles, the work is under contract, to be completed to the latter place by the 1st of December next.

The grading of the road between Binghamton and Owego is finished, and the rails will be laid as early in the spring as the season will permit. Before the close of the present year, the Directors intend to run the cars to Corning.

An arrangement has been made with the Chemung Railroad Company, by which

their road will be run in connection with the Erie, and by means of steamboats on Seneca Lake, a direct line will be formed between New York and Geneva.

Satisfactory progress has been made in the construction of the Newburgh branch, and it is the intention of the Directors to complete it during the ensuing summer.

The bonds issued under the act of May 14, 1845, have all been assigned by the Comptroller, and the proceeds applied to the construction of the road. The Company have deposited with the Comptroller, as required by law, the sum of $597,501 46 to meet the interest on the bonds up to May 14, 1851.

The receipts of the Company from all sources for the year ending December 31, 1848, were		$4,709,713 58
Cash on hand January 1, 1848		170,441 83
Total		$4,880,155 41
The expenditures for the same time on account of construction and materials, machinery, repairs, running the road, and for all other purposes, were		4,573,740 23
Cash on hand 1st January, 1849		$306,415 18

TABULAR STATEMENT.

Number of miles in operation, December 31		74
Construction, including pier		$3,276,678 76
Number of through passengers		28,324½
" way "		259,744½
Receipts from through "		$35,613 82
" " way "		90,108 50
Receipts Railroad	$95,957 19	
" Ferry	29,765 13	
		$125,722 32
Receipts of freight and mail by Railroad	$150,478 13	
" Ferry	34,712 80	185,190 93
Total income from transportation		$310,913 25
Expenses of repairs and running the road	$131,918 32	
" maintaining ferry between New York and Piermont	63,590 17	
		$195,508 49
Amount of dividends (interest on stock 6 per cent)		$133,437 32

The Company own 19 locomotives, 24 passenger cars, 383 eight wheel freight cars, 1 machine shop; average number of men employed in transportation, 200; number of miles run by passenger trains, 85,898; number of miles run by freight and other trains, 117,328—total, 203,226.

MICHIGAN CENTRAL RAILROAD.

We have given from time to time, in this department of the *Merchants' Magazine*, condensed statements of the condition and character of this road. Since the last annual exhibit, a spacious freight and passenger depot (one of the largest and most magnificent in the United States) has been completed in the lower part of Detroit; also, very large and commodious machine shops. The old track has been, and is being, rebuilt and straightened in many places on the route between here and Kalamazoo. Within the past year, the road has been extended from Kalamazoo to Niles, on the St. Joseph, and will be completed to New Buffalo, on Lake Michigan, by the first day of May, 1849. Nearly the whole of the old track has been relaid with heavy T rail, and the balance will be at the earliest possible period. During the past season, several new and splendid Massachusetts manufactured engines have been added to the motive power of the road. The new passenger cars which the company have constructed and placed on the road, and others, which will be in requisition during the present season,

are of the most costly and magnificent finish that can be found on any road in the United States.

The average number of men employed in operating the road, and not connected with the constructive department, has been three hundred and eight. The number of miles run by passenger trains, 101,863; by freight trains, 113,069; by gravel trains, 116,811.

The company are constructing large workshops at Marshall, 110 miles from Detroit, which will be the central point on the road for repairs, building machinery, &c. After the opening of navigation, there will be two daily trains of passenger cars each way—morning and afternoon. There will also be two daily lines of first-class lake boats on Lake Erie, running in connection with the road—one going directly through to Buffalo, the other touching on the south shore.

The entire road is under the supervision of J. W. Brooks, Esq., the able and indefatigable Superintendent for the Company. The track and machinery are kept in the most perfect order; and the utmost regularity as to time, at the different stations, is ever observable.

Below will be found a correct statement of the receipts and expenditures for the year ending November 31, 1848:—

RECEIPTS OF THE MICHIGAN CENTRAL RAILROAD FOR THE YEAR ENDING NOVEMBER 30, 1848.

	Passengers.	Freight.	Miscellaneous.	Total.
December, 1847	$6,345 67	$11,099 47	.....	17,445 14
January, 1848	5,562 40	6,928 93	$4,648 00	$17,139 33
February, 1848	5,131 98	8,798 12	15 50	13,945 60
March, 1848	7,018 32	11,086 00	6 25	18,110 57
April, 1848	11,222 91	14,012 05	6 25	25,241 21
May, 1848	15,006 54	13,948 66	4,496 00	33,451 20
June, 1848	14,688 59	16,036 21	131 25	30,856 05
July, 1848	12,849 61	6,948 79	6 25	10,804 65
August, 1848	15,284 38	9,513 28	.....	24,797 66
September, 1848	20,133 99	34,637 47	28 00	54,799 46
October, 1848	25,146 35	46,289 69	16 25	71,452 29
November, 1848	17,380 60	29,520 70	37 35	46,938 65
Total	$155,771 34	$208,819 37	$9,391 10	$373,981 81

Number of through passengers	13,409
" way "	69,778½
Total	83,187½

The disbursements by the Michigan Central Railroad Company, for the year ending November 30th, 1848, have been as follows:—

CONSTRUCTIVE ACCOUNT.		OPERATING ACCOUNT.	
Land	15,857 63	Road repairs	$38,721 06
Grading	437,402 07	Building "	1,351 71
Bridging	69,512 23	Shop "	.....
Superstructure	752,079 80	Locomotive repairs	30,845 03
Fencing	11,365 70	Car "	19,358 60
Buildings	97,895 50	Locomotive services	20,229 79
Shops	48,421 58	Train "	4,914 43
Locomotives	88,987 81	Station "	37,603 09
Cars	118,011 36	Fuel	22,827 84
New Buffalo harbor	49,535 61	Oil and waste	7,172 85
Steamboat	72,118 64	Stationery	1,959 13
Engineering	21,391 51	Incidentals	2,722 74
Interest	107,820 54	State tax	11,000 00
Incidentals	21,678 45	Total	$198,706 27
Total	$1,911,078 43		

HUDSON RIVER RAILROAD.

This road, under the efficient management of John B. Jervis, is progressing, although no part of it is in operation. They have, since the last Annual Report, put under contract for grading an additional line of about 20 miles, making the whole length of road now under contract, 75 miles, ending at Poughkeepsie, in the county of Dutchess. A corps of engineers have been engaged for the past year in surveying, mapping, and preparing for locating the line extending from Poughkeepsie to Greenbush; the maps of which were ready for filing in the office of the several county clerks in all the month of January.

The total expenditures of the Company from its organization (1st of March, 1847) to December 31, 1848, may be stated as follows:—

Grading	$1,164,412 44
Piling and bridging	54,001 89
Land for road in county of New York	93,767 12
" " " Westchester	161,196 64
" " " Putnam	17,779 73
" " " Dutchess	77,261 12
Depots and depot lands	131,808 34
Iron	343,535 50
Superstructure	15,173 55
Draw Bridges	3,618 06
Water Stations	25 00
Interest to stockholders, November, 1847	26,830 61
" " May, 1848	34,690 01
" " November, 1848	47,383 92
Office expenses and salaries	22,627 91
Contingent expenses	4,376 48
Commissioners' expenses	6,134 27
Engineering expenses	88,909 36
Land expenses, salaries of agents, cost of procuring land	25,494 92
Depot expenses	504 62
Total expenditures to December 31, 1848	$2,322,131 39

UNION CANAL COMPANY.

The Annual Report of the Union Canal Company, as we learn from *Poor's Railroad Journal*, furnishes a highly satisfactory exhibit of the business of the past year. The total tonnage is 153,222 tons, showing an increase of 13,965 tons over the year 1847. There were 20,102 barrels of flour transported; 314,068 bushels of grain, 72,671 tons coal, 32,625 bushels salt, and 81,365 bushels lime. The trade of the Susquehanna is annually and rapidly increasing, but the largest portion of it is diverted from this canal by a long and circuitous route through two neighboring States. It is to be hoped that exertions will be made to have the canal enlarged at an early period, throughout its entire length, so as to admit the passage of the Susquehanna and Juniata boats. This would not only bring an increased business to this route, but would materially increase the amount of tolls received by the Schuylkill Canal.

STEAMBOATS ON THE WESTERN WATERS.

The total number of boats now running upon all the streams emptying into the Mississippi, is 572. The tonnage of these boats is 118,655 tons; their value is estimated at $5,189,979; the yearly outlay at $19,915,753; and annual earnings at $17,428,840. The largest number of all the boats now running, it is said, *lose money*, while the entire capital is exhausted in four years.

MERCANTILE MISCELLANIES.

ANNUAL REPORT OF THE MERCANTILE LIBRARY COMPANY OF PHILADELPHIA.

We take great pleasure in laying before our readers the Twenty-sixth Annual Report of the Directors of the Mercantile Library Company of Philadelphia, entire; a document as just and manly in conception as it is chaste and beautiful in style. It is alike creditable to its author and the institution whose affairs and views it so admirably illustrates. In a former number of the Merchants' Magazine, we published the interesting correspondence which took place between Messrs. Robert F. Walsh and William L. Schaffer, a committee appointed in behalf of the Company, and Thomas P. Cope, Esq., the philanthrophic President of the Institution, relating to the portrait of that gentleman, executed by Mr. John Neagle, which now embellishes the noble Library of the Company; and we are quite sure our readers will be gratified to learn that a mezzotint, copied from the portrait of the venerable President, is in course of preparation, by Sartain, and will be published in an early number of our Magazine, in connection with a sketch of the life and character of Mr. Cope, the steady and undeviating friend of the Company, and one of the brightest living illustrations of mercantile intelligence, honor, and honesty, our country has produced.

The following report, referred to above, was presented at a meeting of the stockholders, January 9th, 1849:—

The Directors of the Mercantile Library Company of Philadelphia, in presenting their Twenty-sixth Annual Report, cannot refrain from expressing their high satisfaction with its continued prosperity.

With increased means of dispensing useful information, it pursues its quiet and unobtrusive course, attracting many, especially of its more youthful members, and supplying them with opportunities of moral and intellectual culture, which, we sincerely trust, will result in a rich return of prosperity and happiness, not only to them, but to those connected with them, in the relations of domestic, social, and business life.

The Treasurer's Report, herewith submitted, will display a satisfactory statement of the Company's finances. During the past year the debt to the Philadelphia Dispensary has been paid in full; and consequently, the ground rent due that institution is entirely extinguished, leaving the present incumbrance on the property eighteen thousand dollars.

There have been received one hundred and thirteen new Stockholders, and seventy-one shares of building scrip have been converted into active shares. The number of volumes purchased since last report is six hundred and sixty-one. The Library now contains twelve thousand two hundred and thirty-two volumes, and we are happy to state, that they consist principally of works of permanent value. The Directors have been careful to exclude from the shelves, books of a frivolous character, or of demoralizing tendencies. It has been their desire to supply to the young men of our city, the means of acquiring solid and useful knowledge, to prepare them for the more responsible positions they will occupy in future life, to enable them to obtain habits of clear and calm reflection; habits which they will find indispensable to the successful pursuit of business.

A well trained mind is as necessary as a well endowed one, to succeed in any pursuit, whether it be of science or of business.

The possession of a lofty intellect is comparatively of little value, unless it be trained to habits of calm reflection, and stored with knowledge of practical utility.

It cannot be denied, that many successful merchants did not in early life possess extended means of intellectual culture. Thrown in boyhood on their own resources, they were compelled to seek the means of subsistence by their constant labor. It is true that they were thus taught habits of industry and enterprise, and they can point to the past as compared with the present, and claim with justice the meed of public approbation and respect for their long continued exertions and unwavering probity; but would they not willingly have embraced in their earlier lives, opportunities of improve-

ment, had circumstances permitted it? and do they not now regret the deprivation which prevented that early culture, which, if attained at all in after years, can be acquired only in the face of difficulties, which to the timid appear insuperable?

To supply these wants, to furnish the members of the mercantile profession, and others, with the means of moral and intellectual advancement;—to teach them habits of thought and action essential to success in life;—to make them not only prosperous merchants, but good and wise men, the Mercantile Library Company was established; and it should be the cause of just pride to the mercantile community of this city, that these objects have been attained in so great a degree.

It has been observed, that within a few years past there have been undoubted indications of an improved public sentiment in regard to the designs of this and similar institutions. The growing interest in this enterprise, the enlargement of the Library, the increased number of visitors to its rooms, tend to prove a progressive elevation of the mercantile character.

These thoughts should encourage us to continued exertion, so that, when our successors in the business pursuits of life shall assume the places which we must soon abandon, a higher degree, not only of commercial, but general intelligence, may mark the mercantile character of our city.

At no period, perhaps, has correct and extensive information been so essential to the mercantile classes as at the present time, and to none is it more important than to the American merchant. The peculiar condition of the European world, with its crumbling thrones and fallen dynasties, agitated by revolutions, political and social; the removal of barriers which have obstructed commercial intercourse between different nations, the diffusion of intelligence among the people, the growing importance of public opinion, the elevation of the middle, and to a certain extent, poorer classes, to the enjoyment and benefit of travel, the consequent destruction of prejudices, and encouragement of international communication, will all tend to unite in peaceful harmony, States and Empires, by ties firmer and more durable than the alliances of Kings and Emperors, the bonds of an enlightened and liberal commerce, founded on reciprocal confidence, and mutual interest. Every change, political or social, in Europe, necessarily exerts great influence on the commerce of the world.

The intelligent merchant, who can contemplate at one extended view, the probable causes and consequences of such changes, their effects, present and to come, will be more likely to reap a rich harvest in his own prosperity, and contribute in some degree to the honor of his country, than if he moves ignorantly in the current of a hazardous and uncertain enterprise.

From the position which our people occupy as a nation, taken in connection with the unsettled state of Europe, the American merchant, if he does not already, will soon exert a commanding influence on the commerce of the world; and we therefore urge our younger brethren in mercantile pursuits, to prepare to enter on that field of honorable enterprise and labor, which is now opening to them. If, with an enlightened conscience, they apply themselves to this noble work, they will, with the exercise of proper energy and prudence, in all probability not only attain success for themselves, but will contribute to the credit of their country and the benefit of their race.

The increased commerce of the country is constantly discovering the means of rapid extension. However our fellow-citizens may differ in opinion respecting the policy of territorial acquisitions, it will be admitted that they open new and fruitful fields to commercial enterprise.

We learn from history, that the progress of civilization is identical with that of commerce. That division of the human family, whose destiny it has been to inhabit these United States, have been impelled by the spirit of a restless activity, applied to trade and navigation, by an untiring energy, love of adventure, and passion for gain, towards the western coast of this Continent, until it has reached the shores of the Pacific, and brought modern civilization face to face with the older civilization of the Asiatic world.

The vast plains of Oregon will in time be occupied by an industrious and enterprising population. Already is California receiving her thousands of inhabitants. The coast of the Pacific Ocean, with its noble rivers and commodious harbors, invites our commerce to its ports. That distant sea will be frequented by our vessels, and to this field the enterprise of many of our citizens is now directed.

The ports of Oregon and California will receive the commerce of the opposite extremes of Asia. The products of the Atlantic border will there seek a market, that their returns may increase the wealth and reward the industry of the merchant and producer here.

To the well-informed merchant, thinking rightly, acting energetically, and prudently availing himself of opening opportunities, success is almost certain.

Other and important effects are rapidly issuing from the events of the last few years. The discovery of the precious metals in abundance within our borders, the probable opening of a shorter and more direct avenue to the Asiatic world, the more general application of steam power to ocean navigation, the possession of the safest and most capacious harbors on the western coast of America, the formation of commercial treaties with several important Asiatic powers, will tend to give us advantages in competing with Europe for the rich commerce of the fruitful East; and enlightened legislation, guided by intelligent public opinion, will direct these advantages to the promotion of all our industrial interests.

Regarding carefully the important transitions of the eventful period in which we live, and impressed by the magnitude of the results, as influencing not only the present, but all future time, the young merchant and the clerk will perceive the importance of mental culture, and that of a high character. Intelligence will promote success. By intelligence we mean not only a technical knowledge of the details of commercial business, but general and accurate information of the social and political condition of the world, the habits and wants of the people of its several divisions, their systems of trade and finance, and all those facts and principles, which govern their intercourse with nations and individuals.

Correct habits of thought, will render knowledge available for useful and profitable purposes.

It is the design of the Mercantile Library Company to encourage these habits, and impart this information. If our younger brethren now avail themselves of the opportunities of improvements here presented, when they shall have attained the maturity of an established reputation, they will look back upon their earlier days with reminiscences of pleasant and profitable hours passed within this hall, and attribute much of their respectability and happiness (under the Providence of God) to this honored Institution.

You cannot begin too soon, or be too diligent in using the means of improvement you can command. Industry is the law of our being; think well how to apply that industry; for no affluence of fortune, or advantage of position, will exempt you from the duty of devoting your time and energy to some useful pursuit.

"Not enjoyment, and not sorrow,
Is our destined end or way;
But to act, that each to-morrow
Find us farther than to-day.

"Let us then be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait."

Hours misspent can never be recalled; indolent habits once formed will be difficult to correct. Experience and observation prove, that knowledge and prudence, with habits of industry acquired in youth, exert most favorable influences on the conduct through life.

Examples may be found among the merchants of our city, of men, whose names are held in respect, not only for their business success, but for an inflexible uprightness of conduct, whose integrity, superior to all falsehood, has enabled them to lead honest and honorable lives, dignified by a beneficence, which applies their time and means to the benefit of others; whose wise resolves and undaunted perseverance have overcome the difficulties which obstructed their progress.

To these examples we invite the attention of those who are about crossing the threshhold of commercial life, and assure them that by taking as the foundation, intelligence, with prudence and unremitting industry, sustained by unwavering probity and honest endeavor to perform the duties of their relations to this life and that to come, they will soon erect a noble superstructure of respectability, prosperity, and happiness.

Respectfully submitted, by order of the Board.

JOHN J. THOMPSON, *Secretary.* THOMAS P. COPE, *President.*

EXTENSIVE CLOTHING ESTABLISHMENTS.

In a former number of the Merchants' Magazine we made some remarks on the extent and increasing importance of the clothing trade in our large commercial cities, briefly glancing at the causes why it had, in a great measure, swallowed up two other branches of industry, namely, that of the cloth retailer and the merchant tailor, blending the two, as it were, in one. We instanced, in that article, one in the city of New York, the Messrs. Devlin's, in John-street, as an illustration of our position. Our at-

tention has since been called to several similar establishments, but no one has impressed us more forcibly with the progress and extent of the business, if we except Simmons' famous "Oak Hall" in Boston, which we recently visited, than that of Messrs. Lewis and Hanford, situated in Pearl-street, and occupying four stores, Nos. 252, 254, 256, and 258, comprising thirteen spacious rooms, five of which are used as sales rooms, three for coats, pants, and vests, two for their extensive variety of shirts and drawers, and one as a packing department; besides two large rooms for cutting and trimming, and four for another branch of manufacture carried on by the same house, embracing oiled clothing and covered hats, designed for seamen, firemen, and a large class of hardy men who are exposed to all weathers and all seasons. But the number of persons connected with this establishment, in one way or another, will, perhaps, give the best idea of the extent of its industry. In the first place, seventy-two persons are employed in the various departments on the premises, two-thirds of whom are married men with families, all dependent on the establishment for the comforts and luxuries of life, and all contributing to swell the amount of its productive industry. But the 3,600 "outsiders," a large portion of whom are women and girls, who are employed "from early dawn to latest eve" in plying the needle, &c., will enable any one, at all familiar with figures, to estimate the quantity of work this establishment is capable of turning out in the course of a year. From a statement of the head cutter and general superintendent, their corps of cutters, who are kept constantly employed, excepting a recess of two weeks in the spring, before commencing on the fall stock, and four weeks in the fall, prior to commencing their spring operations, it appears, have cut, since the first of November, 1848, *one hundred thousand five hundred and eighty garments*, making an average of 976 garments per day.

Notwithstanding the number and commodious size of the rooms in which this immense amount of business is carried on, we should have been incredulous as to its extent, had we not, after a close scrutiny, been struck with the perfect order and system so manifest in every department of the business. Indeed, everything about the concern is reduced to a system, and that system carried out with a degree of precision that would astonish the negligent and careless observer.

From the time the cloth is received into the store until it goes out a finished garment, it passes through its regular routine. As soon as the goods are delivered to the examining and folding department, the head man of that department examines the yards by the invoice, after which he and his assistants measure each piece of goods and examines it thoroughly, marking on the side of the piece, with a tag opposite, any hole or blemish they may discover; after which it is made up into a lot, and one ticket placed upon it stating the number of pieces in the lot, the kind of goods, and number of yards, the cost, width, and of whom it was bought. Another ticket is passed to the head man in the cutting department, who enters the ticket in the cutting account book, giving it a certain number. He then arranges a ticket headed with the number of the lot, stating the description of garments and the style the cloth is to be cut into, arranging the sizes, with any other particular directions required, putting on the name of the person who cuts it. The cutter then receives the cloth, cuts the garments, and places them on a counter, to be ticketed and trimmed. Each garment is then ticketed with its size and the number of the lot. It then passes into the trimmer's hands, who has a book of directions for that purpose. From the trimmer they are passed into the hands of the respective foremen, to distribute among the operatives, and, when made, are returned again to the foreman, who, after a thorough examination, passes them into the sales rooms, where they are arranged in complete order for the salesmen and the purchasers.

The clothing from this establishment is adapted to all markets and for all classes of men, from the humblest laborer to the fashionable gentleman—for the toiling million as well as for the "upper ten thousand," as our friend Willis would say. Reader, if you have any curiosity in the matter, or any misgivings as to our statements, just look in upon this establishment during the winter evenings, when its busy but well ordered rooms are illuminated with its one hundred and twelve gas lights, and our word for it, you will say the half has not been told.

CHANGE OF HOUR OF NEW ORLEANS HIGH 'CHANGE.

Resolved, That this Chamber recommend to the merchants and ship-masters of New Orleans to meet at High 'Change between the hours of half-past one and half-past two o'clock, P. M., and that the present system be abolished from and after the 15th of February.

THE BOOK TRADE.

1.—*Labor and Other Capital: the Rights of Each Secured, and the Wrongs of Both Eradicated, etc.* By EDWARD KELLOGG, Author of "Currency, the Evil and the Remedy."

We have deferred until now making a notice of this work, because it is one of those important essays whose merits demand a more careful analysis than we can afford to bestow upon every new work which reaches us; but owing to the disarrangement of our forms by the fire which destroyed the office of our printer, we are again compelled to defer until next month the review of the work which we had intended to give. Mr. Kellogg is a singularly clear and correct writer, and expresses his novel theories of finance in a manner which renders him comprehensible to the commonest understanding. This is a merit by no means common with writers on finance, who generally take it for granted that the reader will be as well informed as themselves. Since the appearance of Mr. Kellogg's book, it has excited a good deal of attention among thinking men, and he has gained many converts to his peculiar notions on the subjects of usury. Mr. Kellogg is evidently a practical man, who has produced his theories from the laboratory of his own brain instead of culling them from books. This gives a freedom and novelty to his expositions which render them pleasant reading even to the most *blase* of political students. We hope that his book may have a very wide circulation, for although it contains many fallacies, according to our own view of the subject, it also contains a great amount of political and financial truths that cannot fail to make an impression wherever they are made known; and they will, at least, set men to thinking on the important subject of finance, even though they should fail to make converts. The two theories of Mr. Kellogg can be stated in a very few words: in regard to interest, he contends that the present rates are too high, and would limit the rate to 1 per cent, by law; in regard to currency, he contends that money is not merchandise—that being the representative of value it should be itself valueless, and that it should be furnished by the State or nation, to meet the demands of the business of the people in exchange for pledged real estate. These are the naked outlines of his theories, but they are illustrated and enforced with copious facts and very powerful reasoning, which we shall notice at full length in our next number.

2.—*Industrial Exchanges and Social Remedies, with a consideration of Taxation.* By DAVID PARISH BARHYDT, author of "Letters from Europe." 12mo. pp. 238. New York: George P. Putnam.

We have, in this volume, a series of chapters upon topics connected with political economy, "mainly devoted to a view of free trade and protection in their economic and moral aspects," with "such economy, governmental and social principles, as naturally presented themselves to the author's mind, while holding the subject under consideration." It is not a dry, abstract theoretical essay. We quote from the author:—"The principles are combined with their applications, and the effects experience has evolved are referred to as far as the plan of the work will admit; and only in their relations and analogies with free trade, are the various branches of the economical science treated." The writer has evidently reflected much upon the topics discussed, and drawn his conclusions more from his own free mind than the writings of the political economists; and if his views are not entirely new, his mode of treatment has an originality and freshness about it that will be quite refreshing to the general reader, as well as to the student, who often becomes tired with the dry, prosy style of most scientific writers on similar subjects. We shall endeavor to refer to this work in a future number, and, at the same time, give some extracts from its pages, that our readers may be able to form their own estimate of its character.

3.—*Verses of a Life-Time.* By CAROLINE GILMAN. 18mo. pp. 216. Boston: James Munroe & Co.

This volume contains a collection of the thoughts of a pure and gentle woman, written in all the relations of life, as maiden, matron, and mother, and suggested by the experiences of its every day events, expressed in easy, natural, and graceful verse. It is the poetry of domestic life, and its sweet charities and kindly affections, with here and there a touch of romance, the romance of real life, which is often stranger than fiction.

4.—*History of England from the Peace of Utrecht to the Peace of Paris.* By Lord Mahon. Edited by Henry Reed, Professor of English Literature in the University of Pennsylvania. 2 vols. 8vo. pp. 566 & 589. New York: D. Appleton & Co.

This edition, which is the first American, is printed from the last revised London edition, and has the express sanction of the author, who assented not only to the republication, but to the editorial care and supervision of Professor Reed, who has introduced many valuable notes, which are printed within brackets, so that they may be readily distinguished from the author's own notes. Of the merits of the work, it will perhaps be sufficient to say that it has been reviewed and spoken of in terms of high commendation by the London Quarterly, Edinburgh and English Reviews. Mr. Macauley, the able editor and reviewer, and the author of a History of England, says that "Lord Mahon has some of the most valuable qualities of a historian—great diligence in examining authorities, great judgment in weighing testimony, and great impartiality in estimating character. Professor Smyth, of the University of Cambridge, says of it, "I may recommend to others, what I have had so much pleasure in reading myself, the history lately published by Lord Mahon. All that need now be known of the era from the peace of Utrecht to that of Aix-la-Chapelle, will there be found." With a single extract from the London Quarterly Review, we close this notice, not, however, without expressing our approbation of the elegant manner in which the American publishers have reproduced the work in this country.

"Lord Mahon has shown throughout, excellent skill in combining, as well as contrasting, the various elements of interest which his materials afforded; he has continued to draw his historical portraits with the same firm and easy hand; and no one can lay down the book without feeling that he has been under the guidance of a singularly clear, high-principled, and humane mind; one uniting a very searching shrewdness with a pure and unaffected charity. He has shown equal courage, judgment, and taste, in availing himself of minute details, so as to give his narrative the picturesqueness of a memoir, without sacrificing one jot of the real dignity of history. . . . His history is well calculated to temper the political judgment. It is one great lesson of modesty, forbearance, and charity."

5.—*Gothic Architecture, Applied to Modern Residences.* By D. H. Arnot, Architect. New York: D. Appleton & Co.

The design of this work, which is in course of publication, is to select from the simple elements of design, the most applicable and intelligible forms, and combine them in the most useful and imposing manner, without affectation or distortion. This work is devoted to designs for entrances, halls, stairs, and parlors, window frames and door panelling, the jamb and label mouldings, to a large scale; the decoration of chimney breasts and mantels, panelling and groining of ceilings, with the appropriate furniture. It is moreover copiously illustrated with working and prospective drawings, forming all the necessary parts of a modern dwelling in the Gothic style. "Although numerous specimens and adaptations of Gothic art are already before the public, still they relate to plans and purposes foreign to the taste and practice of this country; consequently, in this particular branch of art, this work may be considered as the first attempt to supply a want which has long been felt both by the professional man and amateur."

6.—*Friends and Fortune: a Moral Tale.* By Anna Harriet Drury. 12mo. pp. 240. New York: D. Appleton & Co.

When we took up this book, we had no idea that we should become so much interested as not to be able to lay it down until we had finished the narrative; but such is the fact. The interest of the story is sustained throughout; the characters are true to nature and life, drawn by one who understands the human heart in all its movements. A fine vein of wit and womanly sarcasm, blended with high moral aims, pervades almost every page, and lends a charm to the story, not to be found in the trashy fictions of the day. It is one of the best domestic tales we ever read.

7.—*Aurifodina: or, Adventures in the Gold Region.* By Cantell A. Bigly. New York: Baker & Scribner.

We presume this work will sell, and we suppose that to be the design of the author and publishers. It has been suggested that the name of the author was significant of the character of the work, who, it is said, *can tell a big lie.* As it may serve to relieve the tediousness of a voyage around the Cape to the golden land of promise, its publication, at this time, may not be altogether without an object.

8.—*Oregon and California in* 1848. By J. Quinn Thornton, late Judge of the Supreme Court of Oregon, and Corresponding Member of the American Institute. With an Appendix, including recent and authentic information on the subjects of the Gold Mines of California, and other valuable matter of interest to the emigrant, etc. With illustrations and a map. 2 vols. 12mo. pp. 393 & 379. New York: Harper & Brothers.

The American people are in a fair way to become pretty well acquainted with the character and condition of our newly acquired territories on the Pacific. The first of these two volumes is devoted entirely to Oregon, and contains a sea route of the journeys of the author, with a full, and, we presume, accurate description of the soil, productions, boundaries, mountains, population, character, &c., of Oregon. The second is mainly taken up with similar particulars relating to California, besides the most recent and authentic information touching the gold region. The work contains useful hints and much information of value to the emigrant, derived from the observation and experience of the author, whose means of information, it will be admitted, is of a character that cannot fail of securing for his statements and observations the respect of every intelligent reader. There are a number of well executed illustrations, and a very fine map of Oregon and California, which greatly enhances the value of the work, and renders it an indispensable *vade mecum* for the emigrant.

9.—*The Ship-master's Assistant, and Commercial Digest: containing information necessary for Merchants, Owners, and Masters of Ships, etc.* By Joseph Blunt. 8vo. pp. 820. New York: Harper & Brothers.

This is the third edition of a work, designed, as its title indicates, for merchants, owners, and ship-masters. The legislation of the United States on commercial affairs is here reduced to a system, in as condensed and compact a form as the nature of the undertaking would admit. The subjects embraced in the several divisions of the work relate to masters, mates, seamen, owners, navigation laws, policies, revenue cutters, custom-house laws, importations, clearing and entering vessels, drawbacks, freights, insurance, average, salvage, factors, bills of exchange, currencies, wreck laws, quarantine regulations, marine offences, slave trade, pensions, consuls, commercial regulations, tariffs, warehousing, collisions, &c. On all these subjects, the work appears to be full and complete, and, as a work of almost daily reference, its value to commercial and business men will render it an almost indispensable *vade mecum*.

10.—*The History of England, from the Accession of James II.* By Thomas Babington Macauley. Vol. II. 8vo. pp. 617. New York: Harper & Brothers.

As we have before expressed our opinion of its merits, in noticing the first volume, our main object, at this time, is to announce the appearance of the second volume. Its success, it may, however, be remarked, is the best evidence of its popularity, both in England and the United States. An objection has been made, and, in our opinion, a ridiculous one, to the effect that the American publishers have adopted the orthography of Webster in preference to that of Walker or Johnson, by spelling a few words, as *honor*, without a *u*, and *public* without a *k*. This is perfectly right, as it is only keeping pace with the progress of the English language, by lopping off its superfluous crudities.

11.—*An Elementary Treatise on Mechanics, embracing the Theory of Statics and Dynamics, and its application to Solids and Fluids. Prepared for the Under-graduate Course in the Wesleyan University.* By Augustus W. Smith, LL. D., Professor of Astronomy. 8vo. pp. 307. New York: Harper & Brothers.

The preparation of this treatise was undertaken, we are informed, under the conviction that an elementary work on Analytical Mechanics, suited to the purposes and exigencies of the course of study in colleges, was needed; an impression, the result of long experience in teaching on the part of the author. The author has adopted the analytical method of investigation, consulting and availing himself in its preparation of the most popular authorities. In as far as we are capable of judging, and from an examination necessarily cursory, we should say that, as a whole, it was well calculated to advance the progress of the study of mechanics.

12.—*The Sick Chamber.* Boston: James Munroe & Co.

The hints and advice furnished in this excellent little manual are well worth heeding, particularly all that relates to the nurse, the patient, quiet, ventilation, washing, meals, &c.

13.—*Tour of Duty in California, including a Description of the Gold Region, and an account of the Voyage around Cape Horn; with notices of Lower California, the Gulf and Pacific Coasts, and the Principal Events attending the Conquest of the Californias.* By JOSEPH WARREN REVERE, Lieutenant U. S. Navy, lately in command of the Military District of Sonoma. Edited by JOSEPH N. BALESTIER, of New York. With a map and plate from original designs. 12mo. pp. 305. New York: Charles S. Francis.

This is quite an interesting and readable volume, and we are assured by the editor, Mr. J. N. Balestier, that its entire authenticity may be implicitly relied upon, not the slightest liberty having been taken with matters of fact furnished by the author. The additions of Mr. B., derived from the most authentic and accessible data, are interwoven with the text in such a manner as not to mar the unity or interest of the work. Besides the interesting number of personal incidents and adventures of the author, we have a large amount of information touching the soil, climate, productions, manners and customs of the people, which must prove highly valuable to the emigrant, while it adds to our limited stock of knowledge in regard to California. It is one of the few books on the subject, that affords anything like accurate or reliable information; and will, we have no doubt, be found exceedingly useful to the adventurous spirits about departing for the newly acquired territory of the United States, either in search of gold, or occupation and settlement. We shall have occasion to refer to this work in a future number of our Magazine.

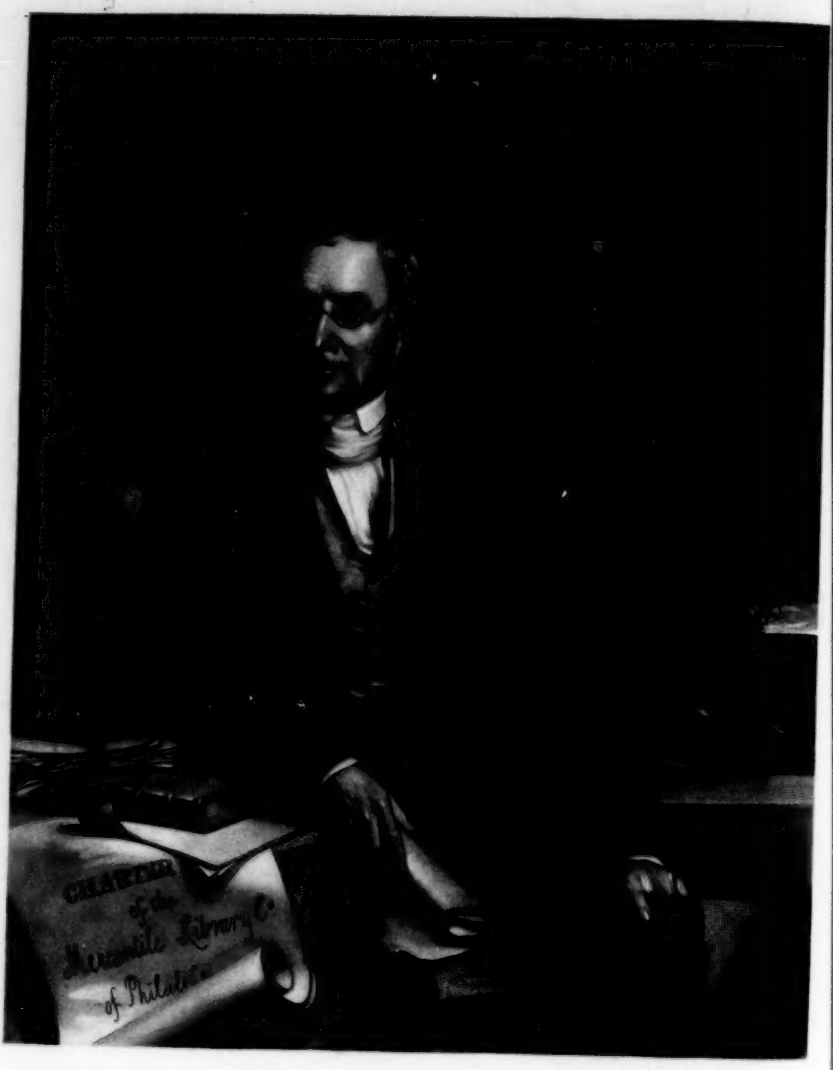
14.—*Outlines of the Course of Qualitative Analysis followed in the Gressen Laboratory.* By HENRY WILL, Ph. D., Professor Extraordinary in the University of Gressen. With a Preface. By Baron LIEBIG. 12mo. pp. 139. Boston: J. Munroe & Co.

This work is designed for use in the laboratory of the practical chemist; consequently, everything which does not immediately refer to the processes of analysis is very properly excluded. It contains an accurate description of the course followed in the laboratory of Dr. Liebig, with advantage, for twenty-five years; and was prepared by Professor Will, who was Dr. L.'s assistant during a great part of that period, and at his request.

☞ The destruction, by fire, of the establishment in which our Magazine was printed, has been a source of no small loss and inconvenience to us. The loss of our printer, GEORGE W. WOOD, the proprietor of the printing office, has been severe, amounting to some $8000, with the exception of $2500, insured. The building, being occupied by HOE and Co., the extensive press manufacturers, with steam-engines, and located in one of the narrowest streets in New York, was considered very hazardous by underwriters, and it was with great difficulty that Mr. Wood obtained insurance for the small amount named, at 3 per cent premium. The great loss we experienced on account of the total destruction of nearly all the copy given out for the March number, and mostly in type, we have only been able to repair by doing our work over again, as far as that was practicable. The loss, we have the satisfaction of knowing, however, is all our own, so far as the Magazine is concerned, as our patrons will notice that our journal appears on an entirely new and beautiful type, from the foundry of Mr. JOHN T. WHITE; and although the number for March has been made up almost entirely of new or other matter than that originally prepared, we believe that it is equally as appropriate to the character of our journal, and will be found as valuable to our readers as that which was destroyed. The few days of delay in the appearance of the Merchants' Magazine could have been avoided, by employing another printer, with an office prepared for the work; but we preferred retaining our worthy, but unfortunate friend, Mr. Wood, who has been our printer for the last seven or eight years, faithfully discharging his duty to the best of his ability.

Several papers from correspondents were destroyed, but all, with the exception of two, have been replaced, and will be published in a future number of our journal. Among the former, there was, we regret to state, a paper received from the Secretary of the Norfolk County Health Insurance Company, of Massachusetts, commenting upon the article on the Law of Sickness, which appeared in the number for December, 1848, analyzing the tables of Mr. ANSEL, upon which that article was based, and controverting his assumption of a scale of sickness graduated by different ages. The writer preserved no copy of that communication, but will probably be able to prepare another, having in his possession the data on which his conclusions were based.

☞ A Correspondent has requested a place in the April number of our journal for an answer to the paper in the February number, on the Coast Survey of the United States.



THOMAS P. COPE, ESQ.

President of the Mercantile Library Co. Philadelphia

Engraved by Jn° Sartain after the Original portrait painted by J. Neagle in 1848, for the Comp.